

Dev, S.
09/386266

09/386266

04jun01 14:14:26 User219783 Session D1718.1

SYSTEM:OS - DIALOG OneSearch

File 35:Dissertation Abstracts Online 1861-2001/Jun
(c) 2001 UMI
File 65:Inside Conferences 1993-2001/May W4
(c) 2001 BLDSC all rts. reserv.
*File 65: CD=2000 and CY=2000 are not fully functioning.
Please see Help News65 for details.
File 77:Conference Papers Index 1973-2001/May
(c) 2001 Cambridge Sci Abs
File 144:Pascal 1973-2001/Jun W1
(c) 2001 INIST/CNRS
File 266:FEDRIP 2001/May
Comp & dist by NTIS, Intl Copyright All Rights Res
File 440:Current Contents Search(R) 1990-2001/Jun W2
(c) 2001 Inst for Sci Info
File 348:EUROPEAN PATENTS 1978-2001/May W02
(c) 2001 European Patent Office
File 357:Derwent Biotechnology Abs 1982-2001/Jun B2
(c) 2001 Derwent Publ Ltd
*File 357: Price changes as of 1/1/01. Please see HELP RATES 357.
File 113:European R&D Database 1997
(c)1997 Reed-Elsevier(UK)Ltd All rts reserv
*File 113: This file is closed (no updates)

Set Items Description

Set	Items	Description
S1	606	(PLGA OR PLG) (10N) LACTIDE
S2	3458	LACTIC (10N) GLYCOLIC
S3	859	POLY (W) (D (W) L OR DL) (W) LACTIDE (1W) GLYCOLIDE
S4	14	(S1 OR S2 OR S3) AND (TH1 OR TH (W) 1)
S5	9	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

5/3,AB/1 (Item 1 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2001 INIST/CNRS. All rts. reserv.

14094998 PASCAL No.: 99-0288585
Induction of cellular immunity to a mycobacterial antigen adsorbed on
lamellar particles of lactide polymers
VENKATAPRASAD N; COOMBES A G A; SINGH M; ROHDE M; WILKINSON K; HUDECZ F;
DAVIS S S; VORDERMEIER H M
MRC Clinical Sciences Centre, Tuberculosis & Related Infections Unit,
Hammersmith Hospital, DuCane Road, London W12 0NN, United Kingdom;
Department of Pharmaceutical Sciences University of Nottingham, University

- key terms

Searcher : Shears 308-4994

Park, Nottingham NG7 2RD, United Kingdom; GBF German National Research Centre for Biotechnology, Mascheroderweg 1, 38124 Braunschweig, Germany; Research Group of Peptide Chemistry, Hungarian Academy of Science, Eotvoes L. University, Budapest 112., POB 32, 1518, Hungary

Journal: Vaccine, 1999, 17 (15-16) 1814-1819

Language: English

Microspheres prepared from synthetic, biodegradable poly (L-lactide) (PLA) and copolymers of *lactide*** and glycolide such as *poly*** (*DL*** *lactide*** co-*glycolide***) (*PLG***) have been widely investigated for controlled delivery of encapsulated vaccine antigens. In this study we describe novel lamellar microparticles produced from PLA to which protein antigens can be adsorbed. These particles when administered to mice, induced strong *Th1***-type T cell responses to the adsorbed 38 kDa protein antigen from M. tuberculosis characterised by high levels of Interferon-gamma. In addition to proteins, we were also able to adsorb synthetic peptides resulting in specific T cell proliferation. Induction of strong cellular immunity together with the versatility of antigen adsorption to these particles should make such lamellae a useful tool to deliver protective antigens from intracellular pathogens.

Copyright (c) 1999 INIST-CNRS. All rights reserved.

5/3,AB/2 (Item 2 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2001 INIST/CNRS. All rts. reserv.

13932472 PASCAL No.: 99-0114720

A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2

SINGH M; CARLSON J R; BRIONES M; UGOZZOLI M; KAZZAZ J; BARACKMAN J; OTT G ; O'HAGAN D

BROWN Fred, ed; NARA Peter L, ed

Adjuvant Research Division, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608, United States

Plum Island Animal Disease Center, Greenport, NY 11944, United States; Biological Mimetics Inc., Frederick, MD 21701, United States

International Society for Vaccines, International.

International Society for Vaccines Symposium on Vaccinology (Leesburg, Virginia USA) 1997-09-08

Journal: Vaccine, 1998, 16 (19) 1822-1827

Language: English

A recombinant form of glycoprotein D from herpes simplex virus type-2 (gD2) was encapsulated into poly(lactide-co-glycolide (PLG) microparticles using a previously established solvent evaporation technique. The mean size of the microparticles was about 1 μ m and high encapsulation efficiency of the antigen was achieved (70-80%). The microparticles were administered intramuscularly to Balb/C mice and the immune responses were compared with

those obtained with the oil in water adjuvant MF59. The serum IgG response to gD2 induced by the microparticles was comparable with that induced by MF59. The serum neutralization titres were also comparable for microparticles and the emulsion. However, the microparticles induced a higher IgG2a isotype response and a more potent serum IFN- gamma response than MF59, suggesting a more *Th1*** type of response. The MF59 induced higher levels of serum IL-4 and IL-5 cytokines, suggesting a more Th2 type of response.

Copyright (c) 1999 INIST-CNRS. All rights reserved.

5/3,AB/3 (Item 3 from file: 144)
DIALOG(R)File 144:Pascal
(c) 2001 INIST/CNRS. All rts. reserv.

13888542 PASCAL No.: 99-0067921
Delivery of MUC1 mucin peptide by poly(d, l-*lactic***-co-*glycolic*** acid) microspheres induces type 1 T helper immune responses
NEWMAN K D; SOSNOWSKI D L; KWON G S; SAMUEL J
Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton Alberta, Canada; School of Pharmacy, University of Wisconsin, Madison, Wisconsin 53706, United States
American Chemical Society. Division of Biotechnology, United States.; Controlled Release Society, Inc., Unknown.
Annual Conference on Formulations and Drug Delivery, 2 (La Jolla, California USA) 1997-10-05
Journal: Journal of pharmaceutical sciences, 1998, 87 (11) 1421-1427
Language: English
square Synthetic peptides corresponding to the variable tandem repeat domain of the cancer-associated antigen MUC mucin are candidates for cancer vaccines. In our investigation mice were immunized via subcutaneous injection with poly(d,l-*lactic***-co-*glycolic*** acid) (PLGA) microspheres containing a MUC mucin peptide. It was hypothesized that microencapsulation of the MUC mucin peptide would prime for antigen-specific *Th1*** responses while avoiding the need for traditional adjuvants and carrier proteins. Furthermore, an immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the peptide-loaded PLGA microspheres based on its ability to enhance *Th1*** responses. The results revealed T cell specific immune responses. The cytokine secretion profiles of the T cells consisted of high levels of interferon- gamma with undetectable levels of interleukin-4 and interleukin-10. Moreover, incorporation of MPLA in the MUC peptide-loaded PLGA microspheres resulted in an increase in interferon- gamma production. The antibody response was negative for IgM and IgG in the absence of MPLA; however, in the presence of MPLA antibody production was negative for IgM with a minimal IgG response consisting of IgG2a, IgG2b, and IgG3. Based on the antibody and cytokine profiles, it was concluded that MUC mucin peptide-loaded PLGA

microspheres are capable of eliciting specific *Th1*** responses, which may be enhanced through the use of MPLA.

Copyright (c) 1999 INIST-CNRS. All rights reserved.

5/3,AB/4 (Item 4 from file: 144)
 DIALOG(R)File 144:Pascal
 (c) 2001 INIST/CNRS. All rts. reserv.

13611320 PASCAL No.: 98-0316855
 Ovalbumin peptide encapsulated in poly(d, l *lactic***-co-*glycolic*** acid) microspheres is capable of inducing a T helper type 1 immune response
 NEWMAN K D; SAMUEL J; KWON G
 3118 Dentistry/Pharmacy Centre, Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta, Edmonton, Alberta T6G 2N8, Canada
 Journal: Journal of controlled release, 1998, 54 (1) 49-59
 Language: English
 An ovalbumin (OVA) peptide, consisting of residues 323-339, was incorporated into poly(d,l *lactic***-co-*glycolic*** acid) (PLGA) microspheres and administered to mice. It was hypothesized that microencapsulation of the peptide in PLGA microspheres would avoid the need for traditional adjuvants and bias the immune response towards a type 1 T helper (*Th1***) response. An immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the microspheres to determine its efficacy in enhancing a *Th1*** response. The specificity of the immune response was determined using a T cell proliferation assay. The type of T helper response was determined by analysis of the cytokine secretion profiles of the proliferating T cells. Following s.c. immunization, the results revealed a T cell-specific immune response for the encapsulated OVA peptide both with and without MPLA. The cytokine profiles revealed high levels of IFN- gamma with very low levels of IL-4 and IL-10, suggesting a Th1 response. Furthermore, incorporation of MPLA in the peptide loaded PLGA microspheres resulted in an increase in the production of IFN- gamma. Hence, peptide-loaded PLGA microspheres are capable of eliciting a specific Th1 immune response, which may be further enhanced in the presence MPLA.

Copyright (c) 1998 INIST-CNRS. All rights reserved.

5/3,AB/5 (Item 5 from file: 144)
 DIALOG(R)File 144:Pascal
 (c) 2001 INIST/CNRS. All rts. reserv.

12524961 PASCAL No.: 96-0199411
 Immunization with a soluble recombinant HIV protein entrapped in biodegradable microparticles induces HIV-specific CD8 SUP + cytotoxic T lymphocytes and CD4 SUP + *Th1*** cells

MOORE A; MCGUIRK P; ADAMS S; JONES W C; MCGEE J P; O'HAGAN D T; MILLS K H
G

Infection and Immunity Laboratory, Biology Department, St Patrick's
College, Maynooth, Co. Kildare, Ireland

Journal: Vaccine, 1995, 13 (18) 1741-1749

Language: English

One of the major obstacles to the development of successful recombinant vaccines against human immunodeficiency virus (HIV) and other intracellular pathogens is the identification of a safe and effective vaccine delivery system for the induction of cell mediated immunity with soluble protein antigens. In this study it was demonstrated that immunization with a recombinant HIV envelope (env) protein entrapped in biodegradable poly(lactide-co-glycolide) (PLG) microparticles induced consistent HIV-specific CD4 SUP + and CD8 SUP + T-cell responses in mice. Major histocompatibility complex (MHC) class I-restricted cytotoxic T lymphocytes (CTL) responses were detected following a single systemic immunization with gp120 entrapped microparticles and when given by the intranasal (in.) route induced HIV-specific CD8 SUP + CTL and secretory IgA. Furthermore immunization with gp120 entrapped in microparticles generated CD4 SUP + T cells that secreted moderate to high levels of IFN- gamma . Therefore, PLG microparticles are a safe and effective means of delivering antigen to the appropriate processing site for the generation of class I-restricted CTL, and are also capable of inducing Th1 cells.

5/3,AB/6 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2001 Inst for Sci Info. All rts. reserv.

12540452 GENUINE ARTICLE#: 412DF NUMBER OF REFERENCES: 39

TITLE: Protection against Bordetella pertussis infection following
parenteral or oral immunization with antigens entrapped in
biodegradable particles: effect of formulation and route of
immunization on induction of Th1 and Th2 cells

AUTHOR(S): Conway MA; Madrigal-Estebas L; McClean S; Brayden DJ; Mills
KHG (REPRINT)

AUTHOR(S) E-MAIL: kingston.mills@may.ie

CORPORATE SOURCE: Natl Univ Ireland, Infect & Immun Grp,
/Maynooth/Kildare/Ireland/ (REPRINT); Natl Univ Ireland, Infect & Immun
Grp, /Maynooth/Kildare/Ireland/; Trinity Coll, /Dublin//Ireland/

PUBLICATION TYPE: JOURNAL

PUBLICATION: VACCINE, 2001, V19, N15-16 (FEB 28), P1940-1950

PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON,
OXFORD OX5 1GB, OXON, ENGLAND

ISSN: 0264-410X

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: The immunogenicity and protective efficacy of systemically and
orally delivered pertussis antigens entrapped in either microparticle

poly-*lactide***-co-glycolide (*PLG***) or nanoparticle *PLG*** formulations were evaluated in a murine respiratory challenge model for infection with *Bordetella pertussis*. The results demonstrate that immunization with two parenteral doses of 1 mug or three oral doses of 100 mug of pertussis toroid (PTd) and filamentous haemagglutinin (FHA) encapsulated in PLG conferred a high level of protection against *B. pertussis* challenge. Furthermore protection could be generated with a single parenteral immunization with a combined microparticle and nanoparticle formulation. However, the route of immunization and the size of the particles affected the type of T cell response induced. Parenteral immunization with PTd and FHA entrapped in PLG microparticles elicits a potent type 1 T cell response and potent antibody response when given by the intraperitoneal (i.p.) or intramuscular (i.m.) route. In contrast, nanoparticle formulations favoured the induction of Th2 cells. (C) 2001 Elsevier Science Ltd. All rights reserved.

5/3,AB/7 (Item 2 from file: 440)
 DIALOG(R)File 440:Current Contents Search(R)
 (c) 2001 Inst for Sci Info. All rts. reserv.

12102603 GENUINE ARTICLE#: 365CH NUMBER OF REFERENCES: 38
 TITLE: Oral immunization with size-purified microsphere beads as a vehicle selectively induces systemic tolerance and sensitization
 AUTHOR(S): Matsunaga Y; Wakatsuki Y (REPRINT); Tabata Y; Kawasaki H; Usui T ; Yoshida M; Itoh T; Habu S; Kita T
 AUTHOR(S) E-MAIL: h50638@sakura.kudpc.kyoto-u.ac.jp
 CORPORATE SOURCE: Kyoto Univ, Div Clin Bioregulatory Sci, /Kyoto//Japan/ (REPRINT); Kyoto Univ, Div Clin Bioregulatory Sci, /Kyoto//Japan/; Kyoto Univ, Biomed Engn Res Ctr, /Kyoto//Japan/; Tokai Univ, Div Host Defense Mechanism, /Kanagawa 2591100//Japan/
 PUBLICATION TYPE: JOURNAL
 PUBLICATION: VACCINE, 2000, V19, N4-5 (OCT 15), P579-588
 PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
 ISSN: 0264-410X
 LANGUAGE: English DOCUMENT TYPE: ARTICLE
 ABSTRACT: Oral administration of antigens has long been recognized as a method to prevent or delay the onset of diseases associated with untoward immune responses to self and non-self antigens. Although oral administration of antigens offers a convenient way to induce systemic tolerance, its therapeutic potential has been seriously limited by the fact that it requires repeated feeding of a large amount of antigens and that it may deteriorate ongoing autoimmune diseases when autoantigens are employed. We have previously shown that orally administered poly-D,L-lactic acid (PDLLA) microspheres containing an antigen were selectively distributed to Peyer's patches (PP) and

systemic lymphoid tissues according to their diameter and then released the antigen over a long period of time. We now report that a single dose of intragastric immunization with a PDLLA microsphere 7-10 μ m in diameter and containing 2 mg of OVA. was as effective as 100 mg of water soluble OVA to suppress OVA-specific IgG and DTH response. This was associated with a large increase of Interferon-gamma production by PPT cells stimulated with an antigen and a small increase in secretory IgA specific-to OVA. In contrast, administration of an antigen encapsulated in microspheres 3-4 μ m in diameter led to an enhanced OVA-specific IgG response and no significant increase in OVA-specific secretory IgA. Thus, by utilizing microspheres of an appropriate diameter as a vaccination vehicle, we were able to selectively induce both systemic tolerance and sensitization by oral ingestion of single low dose of an antigen. (C) 2000 Elsevier Science Ltd. All rights reserved.

5/3,AB/8 (Item 1 from file: 348)
 DIALOG(R) File 348:EUROPEAN PATENTS
 (c) 2001 European Patent Office. All rts. reserv.

00870006

Anti-angiogenic compositions and methods of use
 Anti-angiogene Mittel und Verfahren zu deren Verwendung
 Compositions anti-angiogeniques et leurs procedes d'utilisation
 PATENT ASSIGNEE:

Angiotech Pharmaceuticals, Inc., (1910122), Suite 2120 Oceanic Plaza,
 1066 West Hastings Street, Vancouver, British Columbia V6E 3X1, (CA),
 (Applicant designated States: all)
 THE UNIVERSITY OF BRITISH COLUMBIA, (917325), Office of Research Services
 and Industry Liaison, Room 331, I.R.C. Building, 2194 Health Sciences
 Mall, Vancouver, British Columbia V6T 1Z3, (CA), (Applicant designated
 States: all)

INVENTOR:

Burt, Helen M., 240 East 40th Avenue, Vancouver B.C. V5W 1L8, (CA)
 Jackson, John K., 4001 West 33rd Avenue, Vancouver B.C. V6N 2HN, (CA)
 Hunter, William L., 5252 N. Penticton Street, Vancouver B.C. V5K 3L7,
 (CA)
 Machan, Lindsay S., 2529B Point Grey Rd., Vancouver B.C. V6K 1A1, (CA)
 Arsenault, Larry A., RR1, Paris, Ontario N3L 3E1, (CA)

LEGAL REPRESENTATIVE:

Gowshall, Jonathan Vallance (61531), FORRESTER & BOEHMERT
 Franz-Joseph-Strasse 38, 80801 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 797988 A2 971001 (Basic)
 EP 797988 A3 001122

APPLICATION (CC, No, Date): EP 96119361 940719;

PRIORITY (CC, No, Date): US 94536 930719

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;

09/386266

NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 706376 (EP 94920360)

INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/70; A61L-031/00;

A61K-031/20; A61K-031/335; A61K-038/57

ABSTRACT EP 797988 A2

The present invention provides compositions comprising an anti-angiogenic factor, and a polymeric carrier. Representative examples of anti-angiogenic factors include Anti-Invasive Factor, Retinoic acids and derivatives thereof, and taxol. Also provided are methods for embolizing blood vessels, and eliminating biliary, urethral, esophageal, and tracheal/bronchial obstructions.

ABSTRACT WORD COUNT: 45

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9709W4	528
SPEC A	(English)	9709W4	28275
Total word count - document A			28803
Total word count - document B			0
Total word count - documents A + B			28803

5/3,AB/9 (Item 2 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00680652

ANTI-ANGIOGENIC COMPOSITIONS AND METHODS OF USE

ANTI-ANGIOGENE MITTEL UND VERFAHREN ZU DEREN VERWENDUNG

COMPOSITIONS ANTI-ANGIOGENIQUES ET LEURS PROCEDES D'UTILISATION

PATENT ASSIGNEE:

Angiotech Pharmaceuticals, Inc., (1910122), Suite 2120 Oceanic Plaza,
1066 West Hastings Street, Vancouver, British Columbia V6E 3X1, (CA),
(applicant designated states:

AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)

THE UNIVERSITY OF BRITISH COLUMBIA, (917325), Office of Research Services
and Industry Liaison, Room 331, I.R.C. Building, 2194 Health Sciences
Mall, Vancouver, British Columbia V6T 1Z3, (CA), (applicant designated
states: AT;BE;CH;DE;DK;ES;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)

INVENTOR:

BURT, Helen, M., 240 East 40th Avenue, Vancouver, British Columbia V5W
1L8, (CA)

HUNTER, William, L., 525 North Penticton Street, Vancouver, British

Searcher : Shears 308-4994

09/386266

Columbia V5K 3L7, (CA)

MACHAN, Lindsay, S., 2529B Point Grey Road, Vancouver, British Columbia
V6K 1A1, (CA)

ARSENAULT, A., Larry, RR 1, Paris, Ontario N3L 3E1, (CA)

JACKSON, John, K., 4001 West 33rd Avenue, Vancouver, British Columbia V6N
2HN, (CA)

LEGAL REPRESENTATIVE:

Gowshall, Jonathan Vallance et al (61531), FORRESTER & BOEHMERT

Franz-Joseph-Strasse 38, 80801 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 706376 A1 960417 (Basic)

EP 706376 B1 970625

WO 9503036 950202

APPLICATION (CC, No, Date): EP 94920360 940719; WO 94CA373 940719

PRIORITY (CC, No, Date): US 94536 930719

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;
NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/70; A61L-031/00;

A61K-031/20; A61K-031/335; A61K-038/57;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
----------------	----------	--------	------------

CLAIMS B	(English)	EPAB97	463
----------	-----------	--------	-----

CLAIMS B	(German)	EPAB97	460
----------	----------	--------	-----

CLAIMS B	(French)	EPAB97	497
----------	----------	--------	-----

SPEC B	(English)	EPAB97	28238
--------	-----------	--------	-------

Total word count - document A 0

Total word count - document B 29658

Total word count - documents A + B 29658

Set	Items	Description
-----	-------	-------------

S6	386	(S1 OR S2 OR S3) AND ANTIGEN? ?
----	-----	---------------------------------

S7	1	S6 AND PERTUSIS <i>misspelled, see S9</i>
----	---	---

S8	1	S7 NOT S4
----	---	-----------

>>>No matching display code(s) found in file(s): 65, 113

8/3,AB/1 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2001 INIST/CNRS. All rts. reserv.

12063870 PASCAL No.: 95-0263804

Adjuvantacity and protective immunity elicited by Bordetella pertussis
*antigens*** encapsulated in *poly***(*DL***-lactide***-CO-*glycolide***)
microspheres

SHAHIN R; LEEF M; ELDRIDGE J; HUDSON M; GILLEY R

Cent. biologics evaluation res. food drug administration, lab. pertussis,
Bethesda MD, USA; Univ. Alabama, Birmingham, USA; Southern res. inst.,

Searcher : Shears 308-4994

09/386266

Birmingham AL, USA

Journal: Infection and immunity, 1995, 63 (4) 1195-1200

Language: English

Purified Bordetella pertussis antigens, encapsulated in biodegradable poly(DL-lactide-co-glycolide) (DL-PLG) microspheres, were evaluated for their immunogenicity and ability to elicit a protective immune response against B. pertussis respiratory infection. Microencapsulated pertussis toxoid, filamentous hemagglutinin, and pertactin all retained their immunogenicity when administered parenterally. Intranasal immunization with a low dose (1 µg) of encapsulated filamentous hemagglutinin, pertussis toxoid, or pertactin elicited strong specific immunoglobulin G and immunoglobulin A antibody responses in respiratory secretions that were greater in magnitude than the responses elicited by the same doses of unencapsulated antigen. Intranasal immunization with as little as 1 µg of encapsulated pertussis antigen prior to infection reduced the bacterial recovery by 3 log SUB 1 SUB 0 CFU. However, intranasal immunization with the same low doses of unencapsulated antigens did not reduce infection. Intranasal administration of a combination of 1 µg of each of the microencapsulated pertussis antigens was more effective in reducing bacterial infection than administration of any single microencapsulated antigen. Intranasal administration of microencapsulated B. pertussis antigens elicits high levels of specific antibody coinciding with protection against infection when these microspheres are administered to the respiratory tract. These data provide evidence of the respiratory adjuvanticity of three different DL-PLG microsphere preparations, each of which contains a unique B. pertussis antigen.

Set	Items	Description
S9	27	S6 AND PERTUSSIS
S10	24	S9 NOT (S4 OR S7)
S11	18	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

11/3,AB/1 (Item 1 from file: 144)

DIALOG(R)File 144:Pascal

(c) 2001 INIST/CNRS. All rts. reserv.

12505309 PASCAL No.: 96-0175583

Poly(lactide-co-glycolide) microencapsulation of vaccine antigens

New approaches to vaccine development

JONES D H; MCBRIDE B W; FARRAR G H

LUBITZ Werner, ed

Cent. applied microbiology res., microbial antigens dep., exp. vaccines
sect., Salisbury Wilts. SP4 0JG, United Kingdom

Univ. Vienna, sect. microbiology biotechnology, inst. microbiology
genetics, 1030 Vienna, Austria

NAVD '95. Symposium (Vienna AUT) 1995-04-11

Searcher : Shears 308-4994

Journal: Journal of biotechnology, 1996, 44 (1-3) 29-36

Language: English

Fimbriae from Bordetella *pertussis*** have been encapsulated in poly(lactide-co-glycolide) (*PLG**) microspheres of a size appropriate for oral administration. The binding of antibodies which react with conformational or linear fimbrial epitopes, to fimbriae released from microspheres, suggested that the process of microencapsulation was not detrimental to the native integrity of the protein. Mice were immunised by oral gavage with a single dose of microencapsulated fimbriae, or with fimbriae adsorbed onto alhydrogel and administered by intraperitoneal injection. The resulting immune responses in serum were comparable but only oral administration of microencapsulated fimbriae elicited specific immune responses in external secretions. Six weeks after immunisation, both groups of immunised animals were protected against challenge with live B. *pertussis***.

11/3,AB/2 (Item 1 from file: 440)

DIALOG(R)File 440:Current Contents Search(R)

(c) 2001 Inst for Sci Info. All rts. reserv.

10076286 GENUINE ARTICLE#: 147AE NUMBER OF REFERENCES: 89

TITLE: The preparation and characterization of polymeric *antigen** delivery systems for oral administration

AUTHOR(S): Singh M (REPRINT); O'Hagan D

AUTHOR(S) E-MAIL: manmohan singh@cc.chiron.com

CORPORATE SOURCE: Chiron Corp, Adjuvant Res Div, 4560 Horton

St/Emeryville//CA/94608 (REPRINT); Chiron Corp, Adjuvant Res Div,
/Emeryville//CA/94608

PUBLICATION TYPE: JOURNAL

PUBLICATION: ADVANCED DRUG DELIVERY REVIEWS, 1998, V34, N2-3 (DEC 1), P
285-304

PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

ISSN: 0169-409X

LANGUAGE: English DOCUMENT TYPE: REVIEW

ABSTRACT: Although polymeric delivery systems are well established for the oral administration of conventional drugs, they have not yet been commercially developed for vaccine delivery. The problems inherent with the oral route of delivery, including low pH, gastric enzymes, rapid transit and poor absorption of large molecules, has made the goal of oral delivery of *antigens*** very challenging. Nevertheless, several polymeric delivery systems for the oral administration of vaccines are currently being evaluated, including microencapsulation in poly(lactide-co-glycolides), alginates, polyanhydrides, starch, polymethacrylates, polyamino acids and enteric coating polymers. These approaches are designed to protect the *antigen** in the gut, to target the *antigen** to the gut-associated lymphoid tissue, or to increase the residence time of the *antigen** in the gut through

bioadhesion. Each of these approaches is discussed in relation to *antigen*** encapsulation and integrity, process reproducibility, ease of preparation and encapsulation efficiency. Potential problems associated with the scale-up of these approaches are also briefly addressed. Of particular relevance are the prospects for the application of these formulation processes for commercial development.
(C) 1998 Elsevier Science B.V. All rights reserved.

11/3,AB/3 (Item 2 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2001 Inst for Sci Info. All rts. reserv.

09490864 GENUINE ARTICLE#: ZP179 NUMBER OF REFERENCES: 31
TITLE: Comparison of the immunological and protective responses elicited by microencapsulated formulations of the F1 *antigen*** from Yersinia pestis
AUTHOR(S): Reddin KM (REPRINT); Easterbrook TJ; Eley SM; Russell P; Mobsby VA; Jones DH; Farrar GH; Williamson ED; Robinson A
CORPORATE SOURCE: PUBL HLTH LAB SERV,CTR APPL MICROBIOL & RES/SALISBURY SP4 OJG/WILTS/ENGLAND/ (REPRINT); CHEM & BIOL DEF ESTAB,/SALISBURY SP4 OJG/WILTS/ENGLAND/
PUBLICATION TYPE: JOURNAL
PUBLICATION: VACCINE, 1998, V16, N8 (MAY), P761-767
PUBLISHER: ELSEVIER SCI LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, OXON, ENGLAND
ISSN: 0264-410X
LANGUAGE: English DOCUMENT TYPE: ARTICLE
ABSTRACT: Purified native F1 *antigen*** from Yersinia pestis was used to assess controlled-release vaccine delivery systems in poly(*lactide***-co-glycolide) (*PLG***) microparticles and liposomes. *Antigen*** encapsulated in *PLG*** microparticles induced high serum titres when injected i.p. in mice: mucosal IgA was also detected. Mice immunized with F1 in Alhydrogel or PLGs were protected against subcutaneous challenge with Y. pestis. F1 *antigen*** surface-labelled onto liposome vesicles stimulated high serum titres in Balb/c mice and also induced a mucosal response: F1-labelled liposomes protected mice against challenge with up to 1×10^5 organisms. These findings indicate that a significant immune response is induced by immunizing with F1 formulated in PLGs and liposomes and that protection was achieved after only one dose. (C) 1998 Elsevier Science Ltd. All rights reserved.

11/3,AB/4 (Item 3 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2001 Inst for Sci Info. All rts. reserv.

06544359 GENUINE ARTICLE#: RG404 NUMBER OF REFERENCES: 29

09/386266

TITLE: PROTECTION OF MICE FROM BORDETELLA *PERTUSSIS*** RESPIRATORY
INFECTION USING MICROENCAPSULATED *PERTUSSIS*** FIMBRIAE

AUTHOR(S): JONES DH; MCBRIDE BW; JEFFERY H; OHAGAN DT; ROBINSON A; FARRAR
GH

CORPORATE SOURCE: PUBL HLTH LAB SERV,CTR APPL MICROBIOL & RES,DEPT
MICROBIAL ANTIGENS,DIV RES/SALISBURY SP4 0JG/WILTS/ENGLAND/ (Reprint);
UNIV NOTTINGHAM,DEPT PHARMACEUT SCI/NOTTINGHAM NG7 2RD//ENGLAND/

PUBLICATION: VACCINE, 1995, V13, N7 (MAY), P675-681

ISSN: 0264-410X

LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Conditions have been established which allow the efficient
entrapment of Bordetella *pertussis*** fimbriae in
poly(lactide-co-glycolide) microspheres. Fimbriae released from the
matrix were found to have retained some degree of conformational
structure, as determined by assessing the capacity of fimbrial protein
to bind to antibodies mapping to either conformational or denatured
structures on the fimbriae. Following a single intraperitoneal
injection, equivalent amounts of fimbriae, either encapsulated in
microspheres with a mean diameter of 24 μ m and an estimated in vitro
protein release rate of approximately 42 days, or conventionally
adjuvanted with alhydrogel, elicited vigorous immune responses in mice.
The encapsulated fimbriae appear to elicit marginally lower serum
antibody levels than those induced by equivalent amounts of alhydrogel
adjuvanted fimbriae. Mice immunised with both preparations were,
however, protected against intranasal infection with live B.
*pertussis*** as evidenced by the significant reduction in levels of
bacterial colonisation observed in the lungs and tracheas of immunised
animals when compared to the immunologically naive controls.

11/3,AB/5 (Item 4 from file: 440)

DIALOG(R)File 440:Current Contents Search(R)

(c) 2001 Inst for Sci Info. All rts. reserv.

06272715 GENUINE ARTICLE#: QP134 NUMBER OF REFERENCES: 32

TITLE: ADJUVANTICITY AND PROTECTIVE IMMUNITY ELICITED BY BORDETELLA

*PERTUSSIS*** *ANTIGENS*** ENCAPSULATED IN *POLY***(*DL***-LACTIDE***
-CO-*GLYCOLIDE***) MICROSPHERES

AUTHOR(S): SHAHIN R; LEEF M; ELDRIDGE J; HUDSON M; GILLEY R

CORPORATE SOURCE: US FDA,CBER,PERTUSSIS LAB,HFM-434,BLDG 29,ROOM 414,29

LINCOLN DR MSC 4555/BETHESDA//MD/20892 (Reprint); UNIV

ALABAMA/BIRMINGHAM//AL/00000; SO RES INST/BIRMINGHAM//AL/35255

PUBLICATION: INFECTION AND IMMUNITY, 1995, V63, N4 (APR), P1195-1200

ISSN: 0019-9567

LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Purified Bordetella *pertussis*** *antigens***, encapsulated in
biodegradable *poly***(*DL***-lactide***-co-*glycolide***) (DL-*PLG***
) microspheres, were evaluated for their immunogenicity and ability to

Searcher : Shears 308-4994

elicit a protective immune response against B. *pertussis*** respiratory infection, Microencapsulated *pertussis*** toroid, filamentous hemagglutinin, and pertactin all retained their immunogenicity when administered parenterally, Intranasal immunization with a low dose (1 mu g) of encapsulated filamentous hemagglutinin, *pertussis*** toroid, or pertactin elicited strong specific immunoglobulin G and immunoglobulin A antibody responses in respiratory secretions that were greater in magnitude than the responses elicited by the same doses of unencapsulated *antigen***. Intranasal immunization with as little as 1 mu g of encapsulated *pertussis*** *antigen*** prior to infection reduced the bacterial recovery by 3 log(10) CFU. However, intranasal immunization with the same low doses of unencapsulated *antigens*** did not reduce infection. Intranasal administration of a combination of 1 mu g of each of the microencapsulated *pertussis*** *antigens*** was more effective in reducing bacterial infection than administration of any single microencapsulated *antigen***, Intranasal administration of microencapsulated B. *pertussis*** *antigens*** elicits high levels of specific antibody coinciding with protection against infection when these microspheres are administered to the respiratory tract, These data provide evidence of the respiratory adjuvanticity of three different DL-PLG microsphere preparations, each of which contains a unique B. *pertussis*** *antigen***,

11/3,AB/6 (Item 1 from file: 348)
 DIALOG(R)File 348:EUROPEAN PATENTS
 (c) 2001 European Patent Office. All rts. reserv.

01264831

Polymers loaded with bioactive agents
 Mit bioaktiven Mitteln beladene Polymeren
 Polymeres charges avec des agents bioactifs
 PATENT ASSIGNEE:

IsoTis N.V., (3145730), Prof. Bronkhorstlaan 10, 3723 MB Bilthoven, (NL)
 , (Applicant designated States: all)

INVENTOR:

Bezemer, Jeroen Mattijs, Milosdreef 51, 3562 VG Utrecht, (NL)
 Feijen, Jan, Oude Grensweg 96, 7552 GD Hengelo, (NL)
 van Blitterswijk, Clemens Antoni, Hekendorpse Buurt 2, 3467 PD Hekendorp
 , (NL)
 Grijpma, Dirk Wybe, Bonteweverij 128, 7511 RK Enschede, (NL)

LEGAL REPRESENTATIVE:

Prins, Adrianus Willem et al (20903), Vereenigde, Nieuwe Parklaan 97,
 2587 BN Den Haag, (NL)

PATENT (CC, No, Kind, Date): EP 1090928 A1 010411 (Basic)

APPLICATION (CC, No, Date): EP 203388 000928;

PRIORITY (CC, No, Date): EP 99203195 990930

09/386266

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: C07K-017/04; A61K-009/70; C12N-005/00;
A61L-027/00

ABSTRACT EP 1090928 A1

The invention relates to a process for loading a polymer with one or more bioactive agents, using a wet spinning technique. The invention further relates to a polymer loaded with one or more bioactive agents, obtainable by said process and to the use thereof as a carrier for controlled drug release or as scaffold for tissue engineering.

ABSTRACT WORD COUNT: 58

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200115	402
SPEC A	(English)	200115	5848
Total word count - document A			6250
Total word count - document B			0
Total word count - documents A + B			6250

11/3,AB/7 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2001 European Patent Office. All rts. reserv.

01101398

Microencapsulated DNA for gene therapy

Mikroverkapselte DNA zur Gentherapie

ADN microencapsule s'appliquant dans des procedes de therapie genique

PATENT ASSIGNEE:

MICROBIOLOGICAL RESEARCH AUTHORITY, (1820460), Centre for Applied
Microbiology and Research, Porton Down, Salisbury, Wiltshire SP4 0JG,
(GB), (Applicant designated States: all)

INVENTOR:

Farar, Graham Henry, Parkwater, Whiteparish, Salisbury, Wiltshire SP5 2QR,
(GB)

Jones, David Hugh, Microbiol.Research Authority, Centre for Applied
Microbiology and Research, Porton Down, Salisbury, Wilts. SP4 0JG, (GB)

Clegg, James Christopher Stephen, Microbiol.Res., Aut., Centre for
Applied Microbiology and Research, Porton Down, Salisbury, Wilts. SP4
0JG, (GB)

LEGAL REPRESENTATIVE:

Schlich, George William et al (75591), Mathys & Squire 100 Gray's Inn

Searcher : Shears 308-4994

09/386266

Road, London WC1X 8AL, (GB)

PATENT (CC, No, Kind, Date): EP 965336 A1 991222 (Basic)

APPLICATION (CC, No, Date): EP 99113415 961111;

PRIORITY (CC, No, Date): GB 9523019 951109; GB 9601929 960131

DESIGNATED STATES: AT; BE; CH; DE; DK; FR; GB; IT; LI; NL; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; RO; SI

RELATED PARENT NUMBER(S) - PN (AN):

EP 862419 (EP 96938326)

INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/00; A61K-039/15;

A61K-039/165; A61K-048/00

ABSTRACT EP 965336 A1

A microparticle contains DNA coding for a non-immunogenic gene product and oral administration of the microparticle leads to its expression. DNA coding for a non-immunogenic gene product is for gene therapy applications. DNA is incorporated into the microparticle without destruction of its function.

ABSTRACT WORD COUNT: 44

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	199951	552
SPEC A	(English)	199951	6622
Total word count - document A			7174
Total word count - document B			0
Total word count - documents A + B			7174

11/3,AB/8 (Item 3 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00910585

Polyetheresters copolymers as drug delivery matrices

Polyetherester-Copolymere als Matrixmaterialien für die Arzneistoffabgabe

Copolymeres de polyetheresters comme matrice pour la délivrance de médicaments

PATENT ASSIGNEE:

Osteotech, Inc., (1118232), 51 James Way, Eatontown, NJ 07724, (US),

(applicant designated states:

AT;BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)

INVENTOR:

Goedemoed, Jacob Hillebrand, Frans van Mierisstraat 129-2, 1071 RR

Amsterdam, (NL)

Hennink, Wilhelmus Everhardus, Zuidplasmaan 120, 2743 CZ Waddinxveen,

Searcher : Shears 308-4994

(NL)

Bezemer, Jeroen Mattijs, Pieter Breughelstraat 97, 7556 ZK Hengelo, (NL)

Feijen, Jan, Oude Grensweg 96, 7552 GD Hengelo, (NL)

Van Blitterswijk, Clemens Antoni, Hekendorpsebuurt 2, 3467 PD Hekendorp,
(NL)

De Bruijn, Joost Dick, Laan van Meerdervoort 67, 2517 AG Den Haag, (NL)

LEGAL REPRESENTATIVE:

de Bruijn, Leendert C. et al (19641), Nederlandsch Octrooibureau P.O. Box
29720, 2502 LS Den Haag, (NL)PATENT (CC, No, Kind, Date): EP 830859 A2 980325 (Basic)
EP 830859 A3 980722

APPLICATION (CC, No, Date): EP 97202533 970818;

PRIORITY (CC, No, Date): US 699896 960816

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;
MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-009/16

ABSTRACT EP 830859 A2

A composition for delivering a biologically active agent to a host. The composition comprises a product including a biologically active agent encapsulated in a matrix comprising a copolymer, of a polyalkylene glycol and an aromatic polyester, such as a polyethylene glycol terephthalate/polybutylene terephthalate copolymer. The polyether-ester copolymer protects the biologically active agent (including proteins, peptides, and small drug molecules) from degradation or denaturation and provides an essentially zero-order release.

ABSTRACT WORD COUNT: 70

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9813	474
SPEC A	(English)	9813	17399
Total word count - document A			17873
Total word count - document B			0
Total word count - documents A + B			17873

11/3,AB/9 (Item 4 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00859896

MICROENCAPSULATED DNA FOR VACCINATION AND GENE THERAPY

MIKROVERKAPSELTE DNA ZUR IMPFUNG UND GENTHERAPIE

ADN MICROENCAPSULE S'APPLIQUANT DANS DES PROCEDES DE VACCINATION ET DE
THERAPIE GENIQUE

PATENT ASSIGNEE:

Searcher : Shears 308-4994

09/386266

MICROBIOLOGICAL RESEARCH AUTHORITY, (1820460), Centre for Applied
Microbiology and Research, Porton Down, Salisbury, Wiltshire SP4 0JG,
(GB), (Proprietor designated states: all)

INVENTOR:

FARRAR, Graham Henry, Microbiol. Res. Authority CAMuR, Porton Down,
Salisbury, Wiltshire SP4 0JG, (GB)
JONES, David Hugh, Microbiol. Res. Authority CAMR, Porton Down,
Salisbury, Wiltshire SP4 0JG, (GB)
CLEGG, James Christopher Stephen, Microbiol. Res. Authority CAMR, Porton
Down, Salisbury, Wiltshire SP4 0JG, (GB)

LEGAL REPRESENTATIVE:

Schlich, George William et al (75591), Mathys & Squire European Patent
Attorneys, 100 Gray's Inn Road, London WC1X 8AL, (GB)

PATENT (CC, No, Kind, Date): EP 862419 A1 980909 (Basic)

EP 862419 B1 000503

WO 9717063 970515

APPLICATION (CC, No, Date): EP 96938326 961111; WO 96GB2770 961111

PRIORITY (CC, No, Date): GB 9523019 951109; GB 9601929 960131

DESIGNATED STATES: AT; BE; CH; DE; DK; FR; GB; IT; LI; NL; SE

RELATED DIVISIONAL NUMBER(S) - PN (AN):

EP 965336 (EP 99113415)

INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/00; A61K-039/15;

A61K-039/165; A61K-048/00

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200018	1247
CLAIMS B	(German)	200018	1326
CLAIMS B	(French)	200018	1354
SPEC B	(English)	200018	6623
Total word count - document A			0
Total word count - document B			10550
Total word count - documents A + B			10550

11/3,AB/10 (Item 5 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00791235

Single-shot vaccine formulation

Impfstoffformulierung fur einmalige Anwendung

Formulation de vaccin pour une administration unique

PATENT ASSIGNEE:

LG Chemical Limited, (1983550), 20, Yoido-dong, Yongdungpo-gu, Seoul
150-721, (KR), (applicant designated states:

Searcher : Shears 308-4994

09/386266

AT;BE;CH;DE;DK;ES;FI;FR;GB;GR;IE;IT;LI;LU;MC;NL;PT;SE)

INVENTOR:

Lee, Hyeon-Kook, Hana Apt. 102-1302, No. 153-1, Shinsung-dong,
Yuseong-gu, Daejeon 305-345, (KR)
Park, Jung-Hwan, Doore Apt. 102-505, No. 152-1, Shinsung-dong,
Yuseong-gu, Daejeon 305-345, (KR)
Choi, Nam-Sok, Hanshin 7th Apt. 303-705, No. 130-17, Jamwon-dong,
Seocho-gu, Seoul 137-030, (KR)
Kim, Myung-Jin, LG Apt. 9-502, No. 381-42, Doryong-dong, Yuseong-gu,
Daejeon 305-340, (KR)
Kim, Soo-Hyeon, LG Apt. 5-506, No. 381-42, Doryong-dong, Yuseong-gu,
Daejeon 305-340, (KR)

LEGAL REPRESENTATIVE:

Turi, Michael, Dipl.-Phys. et al (59052), Samson & Partner
Widenmayerstrasse 5, 80538 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 737472 A1 961016 (Basic)

APPLICATION (CC, No, Date): EP 96104177 960315;

PRIORITY (CC, No, Date): KR 955424 950316

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;
MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-009/16; A61K-009/50;

ABSTRACT EP 737472 A1

A microparticle having a particle size ranging from 0.5 to 300 (μ m),
which is prepared by coating an *antigen*** or a mixture of *antigens***
with a water-soluble substance to obtain a core particle and coating the
core particle with a biodegradable polymer; and a single-shot vaccine
formulation prepared by dispersing the microparticles in an injection
medium. (see image in original document)

ABSTRACT WORD COUNT: 75

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	455
SPEC A	(English)	EPAB96	5804
Total word count - document A			6259
Total word count - document B			0
Total word count - documents A + B			6259

11/3,AB/11 (Item 6 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00750372

Method of potentiating an immune response and compositions therefor
Verfahren zur Potenzierung einer Immunantwort sowie die dazugehörigen

Searcher : Shears 308-4994

Mittel

Procédé de potentialisation d'une réponse immunitaire et les compositions correspondantes

PATENT ASSIGNEE:

THE UAB RESEARCH FOUNDATION, (978760), University Station, P.O. Box 1000, Birmingham Alabama 35294, (US), (applicant designated states:

AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

SOUTHERN RESEARCH INSTITUTE, (225411), 2000 Ninth Avenue, South P.O. Box 5305, Birmingham Alabama 35255-5305, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

INVENTOR:

Tice, Thomas T., 1915 Forest River Court, Shelby County, Birmingham, Alabama 35244, (US)

Eldridge, John H., 2335 Deerwood Road, Jefferson County, Birmingham, Alabama 35120, (US)

Gilley, Richard M., 4020 Royal Oak Circle, Jefferson County, Birmingham, Alabama 35243, (US)

Stass, Jay K., 5079 Darlene Drive, Jefferson County, Birmingham, Alabama 35120, (US)

LEGAL REPRESENTATIVE:

Leissler-Gerstl, Gabriele et al (55114), Winzererstrasse 48, 80797 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 706792 A1 960417 (Basic)

APPLICATION (CC, No, Date): EP 95112851 890320;

PRIORITY (CC, No, Date): US 169973 880318

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 333523 (EP 893027466)

INTERNATIONAL PATENT CLASS: A61K-009/50; A61K-039/00;

ABSTRACT EP 706792 A1

A method, and compositions for use therein capable, of delivering a bioactive agent to an animal entailing the steps of encapsulating effective amounts of the agent in a biocompatible excipient to form microcapsules having a size less than approximately ten micrometers and administering effective amounts of the microcapsules to the animal. A pulsatile response is obtained, as well as mucosal and systemic immunity.

ABSTRACT WORD COUNT: 77

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	2539
SPEC A	(English)	EPAB96	13858
Total word count - document A			16397
Total word count - document B			0
Total word count - documents A + B			16397

09/386266

11/3,AB/12 (Item 7 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2001 European Patent Office. All rts. reserv.

00692842

HYDROPHOBIC POLYMERIC MICROPARTICLES
HYDROPHOBE POLYMER MIKROPARTIKEL
MICROPARTICULES DE POLYMERES HYDROPHOBES
PATENT ASSIGNEE:

VIRUS RESEARCH INSTITUTE, (1754331), 61 Moulton Street,, Cambridge, MA
02139, (US), (Proprietor designated states: all)
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, (210190), 77 Massachusetts Avenue,
Cambridge, MA 02139, (US), (Proprietor designated states: all)

INVENTOR:

ANDRIANOV, Alexander, K., 108 Pine Street, Belmont, MA 02178, (US)
LANGER, Robert, S., 77 Lombard Street, Newton, MA 02158, (US)

LEGAL REPRESENTATIVE:

Bassett, Richard Simon et al (52833), Eric Potter Clarkson, Park View
House, 58 The Ropewalk, Nottingham NG1 5DD, (GB)

PATENT (CC, No, Kind, Date): EP 720471 A1 960710 (Basic)
EP 720471 B1 010418
WO 9508320 950330

APPLICATION (CC, No, Date): EP 94928640 940921; WO 94US10692 940921

PRIORITY (CC, No, Date): US 124816 930921

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;
NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-009/16

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200116	553
CLAIMS B	(German)	200116	526
CLAIMS B	(French)	200116	649
SPEC B	(English)	200116	5102
Total word count - document A			0
Total word count - document B			6830
Total word count - documents A + B			6830

11/3,AB/13 (Item 8 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2001 European Patent Office. All rts. reserv.

00649617

A dosage form comprising an *antigen** and a salt form of an organic acid

Searcher : Shears 308-4994

derivative of a sterol

Dosierungsform die ein *Antigen*** und eine Salzform eines organischen Saurederivats eines Sterols enthält

Forme de dosage comprenant un *antigene*** et un sel d'un derive organoacide d'un sterol

PATENT ASSIGNEE:

THE LIPOSOME COMPANY, INC., (536921), One Research Way Princeton
Forrestal Center, Princeton, NJ 08540, (US), (applicant designated
states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

INVENTOR:

Popescu, Mircea C., 5 Parkway Avenue, Plainsboro, New Jersey 08536, (US)
Recine, Marie S., 19 Hoffman Drive, Hamilton Twp., New Jersey 08690, (US)
Alving, Carl L., 3 Newbold Court, Bethesda, Maryland 20817, (US)
Estis, Leonard F., 56 Grafton Road, Upton, Massachusetts 01568, (US)
Keyes, Lynn D., 56 Grafton Road, Upton, Massachusetts 01568, (US)
Janoff, Andrew S., 1807 South Crescent Boulevard, Yardley, Pennsylvania
19067, (US)

LEGAL REPRESENTATIVE:

Warcoin, Jacques et al (19071), Cabinet Regimbeau, 26, avenue Kleber,
75116 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 626169 A2 941130 (Basic)
EP 626169 A3 951213
EP 626169 B1 990714

APPLICATION (CC, No, Date): EP 94201844 890825;

PRIORITY (CC, No, Date): US 236701 880825; US 236702 880825; US 397777
890823

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 356339 (EP 894023431)

INTERNATIONAL PATENT CLASS: A61K-039/145; A61K-009/127; A61K-039/39;

ABSTRACT EP 626169 A2

An influenza immunizing dosage form comprising a liposome and an *antigen*** of Influenza, particularly the hemagglutinin or bromelain fragment, wherein said liposome and *antigen*** are present in an immunization dose. Additionally, a dosage form, including such form particularly adapted to producing an immune response, comprising a salt form of an organic acid derivative of a sterol and an *antigen*** wherein said organic acid derivative of a sterol and *antigen*** are present in an immunization dose, and method of use. Further, a dosage form, including such form particularly adapted to producing an immune response, comprising dimyristolylphosphatidylcholine (DMPC)/cholesterol liposomes, optionally in an aluminum hydroxide gel, and an *antigen*** wherein said DMPC/cholesterol and *antigen*** are present in an immunization dose, and method of use.

ABSTRACT WORD COUNT: 123

LANGUAGE (Publication,Procedural,Application): English; English; English

09/386266

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9928	407
CLAIMS B	(German)	9928	350
CLAIMS B	(French)	9928	498
SPEC B	(English)	9928	9475
Total word count - document A			0
Total word count - document B			10730
Total word count - documents A + B			10730

11/3,AB/14 (Item 9 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
(c) 2001 European Patent Office. All rts. reserv.

00448819

ENCAPSULATION PROCESS

EINKAPSELUNGSVERFAHREN

PROCEDE D'ENCAPSULATION

PATENT ASSIGNEE:

Southern Research Institute, (225410), 2000 Ninth Avenue South,
Birmingham Alabama 35205, (US), (applicant designated states:
AT;BE;CH;DE;DK;ES;FR;GB;IT;LI;LU;NL;SE)

INVENTOR:

TICE, Thomas, R., 1915 Forest River Court, Birmingham, AL 35244, (US)
GILLEY, Richard, M., 4020 Royal Oak Circle, Birmingham, AL 35120, (US)

LEGAL REPRESENTATIVE:

Leissler-Gerstl, Gabriele (55115), Eisenfuhr, Speiser & Partner,
Patentanwalte, Arnulfstrasse 25, 80335 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 471036 A1 920219 (Basic)
EP 471036 A1 920318
EP 471036 B1 960117
WO 9013361 901115

APPLICATION (CC, No, Date): EP 90908830 900502; WO 90US2439 900502

PRIORITY (CC, No, Date): US 347476 890504

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: B01J-013/12; A61K-009/58; A61K-009/52;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB96	1294
CLAIMS B	(German)	EPAB96	1248
CLAIMS B	(French)	EPAB96	1404
SPEC B	(English)	EPAB96	5378
Total word count - document A			0
Total word count - document B			9324

Searcher : Shears 308-4994

Total word count - documents A + B 9324

11/3,AB/15 (Item 10 from file: 348)
 DIALOG(R) File 348:EUROPEAN PATENTS
 (c) 2001 European Patent Office. All rts. reserv.

00375819

Influenza vaccine and novel adjuvants.

Influenzaimpfstoff und Adjuvanten.

Vaccin contre l'influenza et adjuvants.

PATENT ASSIGNEE:

THE LIPOSOME COMPANY, INC., (536921), One Research Way Princeton
 Forrestal Center, Princeton, NJ 08540, (US), (applicant designated
 states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

INVENTOR:

Popescu, Mircea C., 5 Parkway Avenue, Plainsboro, NJ 08536, (US)
 Recine, Marie S., 19 Hoffman Drive, Hamilton Twp., NJ 08690, (US)
 Alving, Carl L., 3 Newbold Court, Bethesda, MD 20817, (US)
 Estis, Leonard F., 56 Grafton Road, Upton, MA 01568, (US)
 Keyes, Lynn D., 56 Grafton Road, Upton, MA 01568, (US)
 Janoff, Andrew S., 1807 South Crescent Boulevard, Yardley, PA 19067, (US)

LEGAL REPRESENTATIVE:

Martin, Jean-Jacques et al (17181), Cabinet REGIMBEAU 26, Avenue Kleber,
 F-75116 Paris, (FR)

PATENT (CC, No, Kind, Date): EP 356339 A1 900228 (Basic)
 EP 356339 B1 950301

APPLICATION (CC, No, Date): EP 89402343 890825;

PRIORITY (CC, No, Date): US 236701 880825; US 236702 880825; US 397777
 890823

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61K-009/50; A61K-039/145;

ABSTRACT EP 356339 A1

An influenza immunizing dosage form comprising a liposome and an
 *antigen*** of Influenza, particularly the hemagglutinin or bromelain
 fragment, wherein said liposome and *antigen*** are present in an
 immunization dose. Additionally, a dosage form, including such form
 particularly adapted to producing an immune response, comprising a salt
 form of an organic acid derivative of a sterol and an *antigen*** wherein
 said organic acid derivative of a sterol and *antigen*** are present in
 an immunization dose, and method of use. Further, a dosage form,
 including such form particularly adapted to producing an immune response,
 comprising dimyristolylphosphatidylcholine (DMPC)/cholesterol liposomes,
 optionally in an aluminum hydroxide gel, and an *antigen*** wherein said
 DMPC/cholesterol and *antigen*** are present in an immunization dose, and
 method of use.

ABSTRACT WORD COUNT: 125

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	723
CLAIMS B	(English)	EPAB95	782
CLAIMS B	(German)	EPAB95	719
CLAIMS B	(French)	EPAB95	961
SPEC A	(English)	EPABF1	9658
SPEC B	(English)	EPAB95	8056
Total word count - document A			10381
Total word count - document B			10518
Total word count - documents A + B			20899

11/3,AB/16 (Item 11 from file: 348)
 DIALOG(R)File 348:EUROPEAN PATENTS
 (c) 2001 European Patent Office. All rts. reserv.

00363033

Method of potentiating an immune response and compositions therefor
 Verfahren zur Potenzierung einer Immunreaktion sowie die dazugehörigen
 Mittel

Procede de potentialisation d'une reaction immunitaire et les compositions
 correspondantes

PATENT ASSIGNEE:

THE UAB RESEARCH FOUNDATION, (978760), University Station, P.O. Box 1000,
 Birmingham Alabama 35294, (US), (applicant designated states:
 AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

SOUTHERN RESEARCH INSTITUTE, (225411), 2000 Ninth Avenue, South P.O. Box
 5305, Birmingham Alabama 35255-5305, (US), (applicant designated
 states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

INVENTOR:

Tice, Thomas T., 1915 Forest River Court, Shelby County, Birmingham
 Alabama 35244, (US)

Eldridge, John H., 2335 Deerwood Road, Jefferson County, Birmingham
 Alabama 35120, (US)

Gilley, Richard M., 4020 Royal Oak Circle, Jefferson County, Birmingham,
 Alabama 35243, (US)

Stass, Jay K, 5079 Darlene Drive, Jefferson County Birmingham Alabama,
 (US)

LEGAL REPRESENTATIVE:

Leissler-Gerstl, Gabriele et al (55114), Winzererstrasse 48, 80797
 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 333523 A2 890920 (Basic)
 EP 333523 A3 900131
 EP 333523 B1 960717

APPLICATION (CC, No, Date): EP 89302746 890320;

09/386266

PRIORITY (CC, No, Date): US 169973 880318

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61K-009/50;

ABSTRACT EP 333523 A2

A method, and compositions for use therein capable, of delivering a bioactive agent to an animal entailing the steps of encapsulating effective amounts of the agent in a biocompatible excipient to form microcapsules having a size less than approximately ten micrometers and administering effective amounts of the microcapsules to the animal. A pulsatile response is obtained, as well as mucosal and systemic immunity.

ABSTRACT WORD COUNT: 67

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	1829
CLAIMS B	(English)	EPAB96	2038
CLAIMS B	(German)	EPAB96	2341
CLAIMS B	(French)	EPAB96	2354
SPEC A	(English)	EPABF1	12009
SPEC B	(English)	EPAB96	12276
Total word count - document A			13839
Total word count - document B			19009
Total word count - documents A + B			32848

11/3,AB/17 (Item 12 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00271802

Method and formulation for orally administering bioactive agents to and through the Peyer's patch.

Methode und Zusammensetzung zur oralen Verabreichung von bioaktiven Mitteln zur Peyer's Flecken.

Methode et formulation pour l'administration orale d'agents biologiquement actifs diriges par les taches de Peyer.

PATENT ASSIGNEE:

SOUTHERN RESEARCH INSTITUTE, (225411), 2000 Ninth Avenue, South P.O. Box 5305, Birmingham Alabama 35255-5305, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

THE UAB RESEARCH FOUNDATION, (978760), University Station, P.O. Box 1000, Birmingham Alabama 35294, (US), (applicant designated states: AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

INVENTOR:

Tice,Thomas R., 1305 Overland Drive, Birmingham,Alabama 35216, (US)

Staas,Jay K., 5079 Darlene Drive, Pinson,Alabama 35126, (US)

Searcher : Shears 308-4994

09/386266

Gilley, Richard M., 4020 Royal Oak Circle, Birmingham, Alabama 35243,
(US)

Eldridge, John H., 2335 Deerwood Road, Birmingham, Alabama 35216, (US)

LEGAL REPRESENTATIVE:

Leissler-Gerstl, Gabriele (55114), Patentanwalting, Arnulfstrasse 25,
80335 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 266119 A2 880504 (Basic)
EP 266119 A3 890726
EP 266119 B1 940720

APPLICATION (CC, No, Date): EP 87309286 871021;

PRIORITY (CC, No, Date): US 923159 861024

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61K-009/50; A61K-009/56; A61K-009/62;

ABSTRACT EP 266119 A2

A method and formulation for orally administering a bioactive agent which comprises encapsulating the agent in one or more biodegradable and biocompatible polymer or copolymer excipients to form a microcapsule which is capable of passing through the gastrointestinal tract unaffected and being taken up by the Peyer's patch.

ABSTRACT WORD COUNT: 52

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPBBF1	401
CLAIMS B	(English)	EPBBF1	1351
CLAIMS B	(German)	EPBBF1	1239
CLAIMS B	(French)	EPBBF1	1307
SPEC A	(English)	EPBBF1	3438
SPEC B	(English)	EPBBF1	3545
Total word count - document A			3839
Total word count - document B			7442
Total word count - documents A + B			11281

11/3, AB/18 (Item 13 from file: 348)

DIALOG(R) File 348: EUROPEAN PATENTS

(c) 2001 European Patent Office. All rts. reserv.

00222795

Use of indolobenzodiazepines for antagonizing luteinizing hormone releasing hormone.

Verwendung von Indolobenzodiazepinen als Antagonisten des Luteinisierungshormon freimachenden Hormons.

Utilisation des indolobenzodiazepines comme antagonistes de l'hormone liberant l'hormone luteinisante.

PATENT ASSIGNEE:

Searcher : Shears 308-4994

09/386266

McNeilab, Inc., (203601), , Springhouse Pennsylvania 19477, (US),
(applicant designated states: AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

INVENTOR:

Ho, Chih Yung, 600 Drinnon Way, Landsdale Pennsylvania 19446, (US)

LEGAL REPRESENTATIVE:

Jones, Alan John et al , CARPMAELS & RANSFORD 43 Bloomsbury Square,
London, WC1A 2RA, (GB)

PATENT (CC, No, Kind, Date): EP 219292 A2 870422 (Basic)

APPLICATION (CC, No, Date): EP 86307693 861006;

PRIORITY (CC, No, Date): US 784963 851007

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61K-031/55;

ABSTRACT EP 219292 A2

Fused tetracyclic benzodiazepines of the formula (I): (see image in original document) where R(sup 1) is an acyclic amine or cyclic amine such as 1-piperidine, 4-morpholine or 1-piperazine and R(sup 2) is H or a substituent as defined herein are useful as antiallergins. Also, methods for their synthesis, intermediate used in such synthesis, methods for use as medicaments and pharmaceutical compositions.

ABSTRACT WORD COUNT: 65

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	158
SPEC A	(English)	EPABF1	5181
Total word count - document A			5339
Total word count - document B			0
Total word count - documents A + B			5339

Set	Items	Description
-----	-------	-------------

S12	2	AU=(BRAYDEN, D? OR BRAYDEN D?) AND (S1 OR S2 OR S3)
-----	---	---

S13	1	S12 NOT (S4 OR S7 OR S10)
-----	---	---------------------------

- Author

13/19/1 (Item 1 from file: 440)

DIALOG(R)File 440:Current Contents Search(R)

(c) 2001 Inst for Sci Info. All rts. reserv.

12279374 GENUINE ARTICLE#: 383JQ

PUBLICATION TYPE: JOURNAL

PUBLICATION: PHARMACEUTICAL RESEARCH, 2000, V17, N10 (OCT)

PUBLISHER: KLUWER ACADEMIC/PLENUM PUBL, 233 SPRING ST, NEW YORK, NY
10013 USA

ISSN: 0724-8741

CURRENT CONTENTS: CC LIFE, V44, N4

JOURNAL SUBJECT: PHARMACOLOGY & TOXICOLOGY;

Searcher : Shears 308-4994

CONTENTS:

Section Heading: REVIEW ARTICLE

- P. 1159-1167. Protein instability in poly(*lactic***-co-*glycolic*** acid) microparticles. van de Weert M; Hennink WE; Jiskoot W. Univ Utrecht, Dept Pharmaceut, POB 80082/NL-3508 TB Utrecht//Netherlands/ (REPRINT); Univ Utrecht, Dept Pharmaceut, /NL-3508 TB Utrecht//Netherlands/. English. REVIEW. 85 REFERENCES. ABSTRACT AVAILABLE

Section Heading: RESEARCH PAPERS-Cellular Drug Delivery

- P. 1168-1174. Mechanisms of transport and structure-permeability relationship of sulfasalazine and its analogs in Caco-2 cell monolayers. Liang E; Proudfoot J; Yazdanian M. Boehringer Ingelheim Pharmaceut Inc, Dept Pharmaceut, 900 Ridgebury Rd, POB 368/Ridgefield//CT/06877 (REPRINT); Boehringer Ingelheim Pharmaceut Inc, Dept Pharmaceut, /Ridgefield//CT/06877; Boehringer Ingelheim Pharmaceut Inc, Dept Med Chem, /Ridgefield//CT/06877. English. ARTICLE. 30 REFERENCES. ABSTRACT AVAILABLE
- P. 1175-1180. The influence of donor and reservoir additives on Caco-2 permeability and secretory transport of HIV protease inhibitors and other lipophilic compounds. Aungst BJ; Nguyen NH; Bulgarelli JP; Oates-Lenz K. Dupont Merck Pharmaceut Co, POB 80400/Wilmington//DE/19880 (REPRINT); Dupont Merck Pharmaceut Co, /Wilmington//DE/19880. English. ARTICLE. 22 REFERENCES. ABSTRACT AVAILABLE
- P. 1181-1188. Evaluation of the Caco-2 monolayer as a model epithelium for iontophoretic transport. Leonard M; Creed E; *Brayden D; *** Baird AW. Univ Coll Dublin, Dept Pharmacol, /Dublin 4//Ireland/ (REPRINT); Univ Coll Dublin, Dept Pharmacol, /Dublin 4//Ireland/; Trinity Coll, /Dublin//Ireland/; Univ Coll Dublin, Conway Inst Biomol & Biomed Sci, /Dublin 2//Ireland/. English. ARTICLE. 18 REFERENCES. ABSTRACT AVAILABLE
- P. 1189-1197. Inhibitory potencies of 1,4-dihydropyridine calcium antagonists to P-glycoprotein-mediated transport: Comparison with the effects on CYP3A4. Katoh M; Nakajima M; Yamazaki H; Yokoi T. Kanazawa Univ, Div Drug Metab, Takara Machi 13-1/Kanazawa/Ishikawa 9200934/Japan/ (REPRINT); Kanazawa Univ, Div Drug Metab, /Kanazawa/Ishikawa 9200934/Japan/. English. ARTICLE. 24 REFERENCES. ABSTRACT AVAILABLE
- P. 1198-1205. Astrocytes increase the functional expression of P-glycoprotein in an in vitro model of the blood-brain barrier. Gaillard PJ; van der Sandt ICJ; Voorwinden LH; Vu D; Nielsen JL;

de Boer AG; Breimer DD. Leiden Univ, Dept Pharmacol, POB 9503/NL-2300 RA Leiden//Netherlands/ (REPRINT); Leiden Univ, Dept Pharmacol, /NL-2300 RA Leiden//Netherlands/. English. ARTICLE. 28 REFERENCES. ABSTRACT AVAILABLE

- P. 1206-1211. Nuclear transport of oligonucleotides in HepG2-cells mediated by protamine sulfate and negatively charged liposomes. Welz C; Neuhuber W; Schreier H; Metzler M; Repp R; Rascher W; Fahr A. Univ Marburg, Dept Pharmaceut & Biopharm, Ketzerbach 63/D-35032 Marburg//Germany/ (REPRINT); Univ Marburg, Dept Pharmaceut & Biopharm, /D-35032 Marburg//Germany/; Univ Erlangen Nurnberg, Dept Anat, /D-8520 Erlangen//Germany/; Univ Erlangen Nurnberg, Dept Pediat, /D-8520 Erlangen//Germany/. English. ARTICLE. 26 REFERENCES. ABSTRACT AVAILABLE

Section Heading: Drug Targeting

- P. 1212-1219. Intravenous Cereport (RMP-7) enhances delivery of hydrophilic chemotherapeutics and increases survival in rats with metastatic tumors in the brain. Emerich DF; Dean RL; Marsh J; Pink M; Lafreniere D; Snodgrass P; Bartus RT. Alkermes Inc, Dept Pharmacol, 64 Sidney St/Cambridge//MA/02139 (REPRINT); Alkermes Inc, Dept Pharmacol, /Cambridge//MA/02139; Tufts Univ, Dept Pharmacol & Expt Therapeut, /Boston//MA/02111. English. ARTICLE. 28 REFERENCES. ABSTRACT AVAILABLE
- P. 1220-1227. Pharmacokinetic-pharmacodynamic modelling of morphine transport across the blood-brain barrier as a cause of the antinociceptive effect delay in rats - A microdialysis study. Bouw MR; Gardmark M; Hammarlund-Udenaes M. Univ Uppsala, Dept Pharm, /S-75123 Uppsala//Sweden/ (REPRINT); Univ Uppsala, Dept Pharm, /S-75123 Uppsala//Sweden/; Med Prod Agcy, /Uppsala//Sweden/. English. ARTICLE. 32 REFERENCES. ABSTRACT AVAILABLE
- P. 1228-1235. A population analysis of nebulized (R)-albuterol in dogs using a novel mixed gut-lung absorption PK-PD model. Auclair B; Wainer IW; Fried K; Koch P; Jerussi TP; Ducharme MP. MDS Pharma Serv, 2350 Cohen/St Laurent/PQ H4R 2N6/Canada/ (REPRINT); Univ Montreal, Fac Pharm, /Montreal/PQ H3C 3J7/Canada/; Georgetown Univ, /Washington//DC/; Sepracor Pharma, /Marlborough//MA/; MDS Pharma Serv, /Montreal/PQ/Canada/. English. ARTICLE. 34 REFERENCES. ABSTRACT AVAILABLE
- P. 1236-1242. Biodistribution of amphotericin B when delivered through cholesterol hemisuccinate vesicles in normal and A-fumigatus infected mice. Saxena S; Ghosh PC. Univ Delhi, Dept Biochem, South Campus, Benito Juarez Rd/New Delhi 110021//India/ (REPRINT); Univ Delhi, Dept Biochem, /New Delhi 110021//India/. English.

ARTICLE. 26 REFERENCES. ABSTRACT AVAILABLE

- P. 1243-1249. Sciatic nerve blockade with lipid-protein-sugar particles containing bupivacaine. Kohane DS; Lipp M; Kinney RC; Lotan N; Langer R. MIT, Dept Chem Engr, Bldg E-25, Rm 342, 77 Main St/Cambridge//MA/02139 (REPRINT); MIT, Dept Chem Engr, /Cambridge//MA/02139; Massachusetts Gen Hosp, Dept Pediat, /Boston//MA/02114; Harvard Univ, Sch Med, /Boston//MA/02115; Technion Israel Inst Technol, Dept Biomed Engr, /Haifa//Israel/. English. ARTICLE. 23 REFERENCES. ABSTRACT AVAILABLE
- P. 1250-1258. Niosomes and polymeric chitosan based vesicles bearing transferrin and glucose ligands for drug targeting. Dufes C; Schatzlein AG; Tetley L; Gray AI; Watson DG; Olivier JC; Couet W; Uchegbu IF. Univ Strathclyde, Strathclyde Inst Biomed Sci, 27 Taylor St/Glasgow G4 0NR/Lanark/Scotland/ (REPRINT); Univ Strathclyde, Strathclyde Inst Biomed Sci, /Glasgow G4 0NR/Lanark/Scotland/; Univ Glasgow, Dept Med Oncol, /Glasgow G61 1BD/Lanark/Scotland/; Univ Glasgow, Inst Biomed & Life Sci, /Glasgow G12 8QQ/Lanark/Scotland/; Fac Med & Pharm, Lab Pharm Galen & Biopharm, /F-86000 Poitiers//France/. English. ARTICLE. 30 REFERENCES. ABSTRACT AVAILABLE
- P. 1259-1264. Oral delivery of new heparin derivatives in rats. Lee YK; Kim SH; Byun Y. Kwangju Inst Sci & Technol, Puk Gu, 1 Oryong Dong/Kwangju 500712//South Korea/ (REPRINT); Kwangju Inst Sci & Technol, Puk Gu, /Kwangju 500712//South Korea/; Samsung Med Ctr, Dept Clin Pathol, /Seoul 135710//South Korea/. English. ARTICLE. 13 REFERENCES. ABSTRACT AVAILABLE

Section Heading: Drug Delivery

- P. 1265-1272. A strategy for primary high throughput cytotoxicity screening in pharmaceutical toxicology. Bugelski PJ; Atif U; Molton S; Toeg I; Lord PG; Morgan DG. SmithKline Beecham Pharmaceut, Safety Assessment, The Frythe/Welwyn Garden City AL6 9AR/Herts/England/ (REPRINT); SmithKline Beecham Pharmaceut, Safety Assessment, /Welwyn Garden City AL6 9AR/Herts/England/; SmithKline Beecham Pharmaceut, Informat Management, /Welwyn Garden City AL6 9AR/Herts/England/. English. ARTICLE. 29 REFERENCES. ABSTRACT AVAILABLE
- P. 1273-1277. Rapid non-genomic feedback effects of glucocorticoids on CRF-induced ACTH secretion in rats. Hinz B; Hirschelmann R. Univ Erlangen Nurnberg, Dept Expt & Clin Pharmacol & Toxicol, Fahrstr 17/D-91054 Erlangen//Germany/ (REPRINT); Univ Erlangen Nurnberg, Dept Expt & Clin Pharmacol & Toxicol, /D-91054 Erlangen//Germany/; Univ Halle Wittenberg, Dept Pharmacol & Toxicol, /D-06120 Halle//Germany/. English. ARTICLE. 30 REFERENCES. ABSTRACT

AVAILABLE

Section Heading: Clinical Pharmacology

- P. 1278-1283. Confidence interval criteria for assessment of dose proportionality. Smith BP; Vandenhende FR; DeSante KA; Farid NA; Welch PA; Callaghan JT; Forgue ST. Lilly Lab Clin Res, 550 N Univ Blvd/Indianapolis//IN/46202 (REPRINT); Lilly Lab Clin Res, /Indianapolis//IN/46202; Lilly Dev Ctr, /B-1348 Mont St Guibert//Belgium/; Lilly Res Labs, Drug Disposit Dept, /Indianapolis//IN/46285; Indiana Univ, Dept Pharmacol, /Indianapolis//IN/46202; Indiana Univ, Dept Pediat, /Indianapolis//IN/46202; Indiana Univ, Dept Med, /Indianapolis//IN/46202. English. ARTICLE. 14 REFERENCES. ABSTRACT AVAILABLE

- P. 1284-1289. Population pharmacokinetics of temozolomide in cancer patients. Jen JF; Cutler DL; Pai SM; Batra VK; Affrime MB; Zambas DN; Heft S; Hajian G. Schering Plough Res Inst, Dept Stat, 2015 Galloping Hill Rd,K-15-2-2125/Kenilworth//NJ/07033 (REPRINT); Schering Plough Res Inst, Dept Stat, /Kenilworth//NJ/07033; Schering Plough Res Inst, Dept Clin Pharmacol, /Kenilworth//NJ/07033; Schering Plough Res Inst, Dept Drug Metab & Pharmacokinet, /Kenilworth//NJ/07033. English. ARTICLE. 19 REFERENCES. ABSTRACT AVAILABLE

Section Heading: Pharmaceutical Engineering

- P. 1290-1298. Hydrophilic matrices for controlled drug delivery: An improved mathematical model to predict the resulting drug release kinetics (the "sequential layer" model). Siepmann J; Peppas NA. Univ Angers, Pharm Galen Lab, 16 Blvd Daviers/F-49100 Angers//France/ (REPRINT); Free Univ Berlin, Coll Pharm, /D-12169 Berlin//Germany/; Purdue Univ, Sch Chem Engr, /W Lafayette//IN/47907. English. ARTICLE. 30 REFERENCES. ABSTRACT AVAILABLE
- P. 1299-1308. Investigating the structure and properties of hydrated hydroxypropyl methylcellulose and egg albumin matrices containing carbamazepine: EPR and NMR study. Katzhendler I; Mader K; Azoury R; Friedman M. Hebrew Univ Jerusalem, David R Bloom Ctr Pharm, POB 12065/IL-91120 Jerusalem//Israel/ (REPRINT); Hebrew Univ Jerusalem, David R Bloom Ctr Pharm, /IL-91120 Jerusalem//Israel/; Free Univ Berlin, Dept Pharmaceut, /D-1000 Berlin//Germany/; Soreq NRC, Radiopharmaceut Div, /IL-10800 Yavne//Israel/. English. ARTICLE. 27 REFERENCES. ABSTRACT AVAILABLE
- P. 1309-1315. Characterization and in vitro methotrexate release from

methotrexate/gelatin conjugates of opposite conjugate bond polarity.
Bowman BJ; Ofner CM. Univ Sci Philadelphia, Dept Pharmaceut Sci,
600 S 43rd St/Philadelphia//PA/19104 (REPRINT); Univ Sci
Philadelphia, Dept Pharmaceut Sci, /Philadelphia//PA/19104.
English. ARTICLE. 31 REFERENCES. ABSTRACT AVAILABLE

P. 1316-1322. Freeze-concentration separates proteins and polymer
excipients into different amorphous phases. Izutsu K; Kojima S.
Natl Inst Hlth Sci, 1-18-1 Kamiyoga/Tokyo 1588501//Japan/ (REPRINT);
Natl Inst Hlth Sci, /Tokyo 1588501//Japan/. English. ARTICLE. 30
REFERENCES. ABSTRACT AVAILABLE

P. 1323-1328. Biodegradable PLGA microspheres loaded with ganciclovir
for intraocular administration. Encapsulation technique, in vitro
release profiles, and sterilization process. Herrero-Vanrell R;
Ramirez L; Fernandez-Carballido A; Refojo MF. Harvard Univ,
Schepens Eye Res Inst, /Boston//MA/02115 (REPRINT); Harvard Univ,
Schepens Eye Res Inst, /Boston//MA/02115; Univ Complutense, Fac
Farm, /E-28040 Madrid//Spain/. English. ARTICLE. 29 REFERENCES.
ABSTRACT AVAILABLE

Section Heading: SHORT COMMUNICATION

P. 1329-1332. New bicompartamental structures are observed when
stearylamine is mixed with triglyceride emulsions. Teixeira H;
Dubernet C; Rosilio V; Benita S; Lepault J; Erk I; Couvreur P.
Univ Paris 11, UMR 8612, 5 Rue JB Clement/F-92296 Chatenay
Malabry//France/ (REPRINT); Univ Paris Sud, UMR 8612, /F-92296
Chatenay Malabry//France/; CNRS, Ctr Genet Mol, /Gif Sur
Yvette//France/; Hebrew Univ Jerusalem, Sch Pharm, /IL-91120
Jerusalem//Israel/. English. ARTICLE. 11 REFERENCES

? log y

04jun01 14:23:17 User219783 Session D1718.2

09/386266

-key terms

(FILE 'REGISTRY' ENTERED AT 14:51:42 ON 04 JUN 2001)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "LACTIC ACID-GLYCOLIC
ACID COPOLYMER"/CNL3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(DL-LACTIDE-CO-GLY
COLIDE)"/CN

(FILE 'CAPLUS' ENTERED AT 14:55:34 ON 04 JUN 2001)

L1 1 SEA FILE=REGISTRY ABB=ON PLU=ON "LACTIC ACID-GLYCOLIC
ACID COPOLYMER"/CNL3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "POLY(DL-LACTIDE-CO-GLY
COLIDE)"/CN

L4 2559 SEA FILE=CAPLUS ABB=ON PLU=ON L1 OR LACTIC(S)GLYCOLIC

L6 465 SEA FILE=CAPLUS ABB=ON PLU=ON (PLGA OR PLG)(S)LACTIDE

L7 1650 SEA FILE=CAPLUS ABB=ON PLU=ON L3 OR POLY(W)(DL OR D
L)(W)LACTIDE(1W)GLYCOLIDEL8 13 SEA FILE=CAPLUS ABB=ON PLU=ON (L4 OR L6 OR L7) AND
(TH1 OR TH(W)1)

L8 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:146645 CAPLUS

TITLE: Protection against Bordetella pertussis
infection following parenteral or oral
immunization with antigens entrapped in
biodegradable particles: effect of formulation
and route of immunization on induction of
Th1 and **Th2** cellsAUTHOR(S): Conway, M. A.; Madrigal-Estebas, L.; McClean,
S.; Brayden, D. J.; Mills, K. H. G.CORPORATE SOURCE: Department of Biology, Institute of Immunology,
Infection and Immunity Group, National
University of Ireland, Maynooth, Ire.SOURCE: Vaccine (2001), 19(15-16), 1940-1950
CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The immunogenicity and protective efficacy of systemically and
orally delivered pertussis antigens entrapped in either
microparticle poly-lactide-co-glycolide (**PLG**) or
nanoparticle **PLG** formulations were evaluated in a murine
respiratory challenge model for infection with Bordetella pertussis.
The results demonstrate that immunization with two parenteral doses
of 1 .mu.g or three oral doses of 100 .mu.g of pertussis toxoid
(PTd) and filamentous haemagglutinin (FHA) encapsulated in PLG
conferred a high level of protection against B. pertussis challenge.
Furthermore protection could be generated with a single parenteral
immunization with a combined microparticle and nanoparticle

formulation. However, the route of immunization and the size of the particles affected the type of T cell response induced. Parenteral immunization with PTD and FHA entrapped in PLG microparticles elicits a potent type 1 T cell response and potent antibody response when given by the i.p. (i.p.) or i.m. (i.m.) route. In contrast, nanoparticle formulations favored the induction of Th2 cells.

REFERENCE COUNT: 39
 REFERENCE(S): (1) Ausiello, C; Infect Immun 1997, V65, P2168
 CAPLUS
 (2) Bazin, H; J Immunol 1970, V105, P1049 CAPLUS
 (4) Bomford, R; AIDS Res Hum Retrovir 1992, V8, P1765 CAPLUS
 (7) Cahill, E; Vaccine 1995, V13, P455 CAPLUS
 (8) Challacombe, S; Immunology 1992, V76, P164 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 2001:137052 CAPLUS
 DOCUMENT NUMBER: 134:183507
 TITLE: Immunological tolerance-induction agent
 INVENTOR(S): Kim, Ho-Youn; Park, Jong-Sang; Ryoo, Zae-Young;
 Bae, Euiyoung; Lee, Woo-Kyoung; Cho, Chul-Soo;
 Park, Sung-Hwan; Kim, Wan-Uk
 PATENT ASSIGNEE(S): S. Korea
 SOURCE: PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001012222	A1	20010222	WO 1999-KR460	19990818

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AB A method for treating autoimmune diseases by administering orally to a mammal suffering from autoimmune diseases particles of biodegradable polymers or their complexes with an autoimmune antigen is provided. Only single administration can effectively induce oral

09/386266

tolerance to autoimmune diseases, resulting in a strong and prolonged suppression of the diseases.

IT 26780-50-7, Poly(DL-lactide
-co-glycolide)

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(immunol. tolerance-induction agent for treatment of autoimmune diseases)

REFERENCE COUNT: 4

REFERENCE(S): (1) Baekkeskov; US 5691448 A 1997 CAPLUS
(2) Bai; WO 9937315 A1 1999 CAPLUS
(3) Corixa Corporation; WO 9909956 A1 1999 CAPLUS
(4) Lyfja Roun Hf Icelandic Bio Pharm Group; WO 9902186 A2 1999 CAPLUS

L8 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:608550 CAPLUS

DOCUMENT NUMBER: 133:213150

TITLE: Microemulsions with adsorbed macromolecules and microparticles for stimulation of immunity

INVENTOR(S): O'Hagan, Derek; Ott, Gary S.; Donnelly, John; Kazzaz, Jina; Ugozzoli, Mildred; Singh, Manmohan; Barackman, John

PATENT ASSIGNEE(S): Chiron Corp., USA

SOURCE: PCT Int. Appl., 95 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050006	A2	20000831	WO 2000-US3331	20000209
WO 2000050006	A3	20010118		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-121858 P 19990226
US 1999-146391 P 19990729

Searcher : Shears 308-4994

US 1999-161997 P 19991028

AB Microparticles with adsorbent surfaces, methods of making such microparticles, and uses thereof, are disclosed. The microparticles comprise a polymer, such as a poly(.alpha.-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a polyanhydride, and the like, and are formed using cationic, anionic, or nonionic detergents. The surface of the microparticles efficiently adsorb biol. active macromols., such as DNA, polypeptides, antigens, and adjuvants. Also provided are compns. of an oil droplet emulsion having a metabolizable oil and an emulsifying agent. Immunogenic compns. having an immunostimulating amt. of an antigenic substance, and an immunostimulating amt. of an adjuvant compn. are also provided. Methods of stimulating an immune response, methods of immunizing a host animal against a viral, bacterial, or parasitic infection, and methods of increasing a Th1 immune response in a host animal by administering to the animal an immunogenic compn. of the microparticles, and/or microemulsions of the invention, are also provided.

IT 26780-50-7, Poly(DL-lactide
-co-glycolide

RL: PEP (Physical, engineering or chemical process); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES
(Uses)

(microemulsions with adsorbed macromols. and microparticles for
stimulation of immunity)

L8 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:161163 CAPLUS

DOCUMENT NUMBER: 132:199032

TITLE: Method for inducing a cell-mediated immune
response and parenteral vaccine formulations
therefor

INVENTOR(S): Brayden, David James

PATENT ASSIGNEE(S): Elan Corporation, PLC, Ire.

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000012125	A1	20000309	WO 1999-IE87	19990831
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,			

Searcher : Shears 308-4994

09/386266

SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU,
ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9954412 A1 20000321 AU 1999-54412 19990831
PRIORITY APPLN. INFO.: US 1998-98760 P 19980901
 WO 1999-IE87 W 19990831

AB A method of inducing either a **TH1** polarized immune response, a TH2 polarized immune response, or a combined **TH1** and TH2 response to an antigen, and assocd. vaccine formulations, are disclosed. A method is provided for inducing a polarized **TH1** response by parenteral administration of microparticles sized such that at least 50% of the microparticles are less than 5 .mu.m, the microparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Addnl., a method is provided for inducing a polarized TH2 response by parenteral administration of nanoparticles sized such that at least 50% of the nanoparticles are less than 600 nm, the nanoparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Vaccine formulations contg. the B. pertussis antigens PTd, FHA, or a combination of PTd and FHA, are provided.

IT **26780-50-7, Poly(D,L-lactide-co-glycolide) 34346-01-5, Lactic acid-glycolic acid copolymer**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (cell-mediated immune response induction and parenteral vaccine)

REFERENCE COUNT: 11
REFERENCE(S): (1) Cahill, E; VACCINE 1995, V13(5), P455 CAPLUS
 (2) Cohen, S; "Microparticulate Systems for the Delivery of Proteins and Vaccines 1996, P51 CAPLUS
 (3) Farrar Graham Henry; WO 9858668 A 1998 CAPLUS
 (4) Jones, D; INFECTION AND IMMUNITY 1996, V64(2), P489 CAPLUS
 (6) Medeva Holdings Bv; WO 9321950 A 1993 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:161162 CAPLUS
DOCUMENT NUMBER: 132:199031
TITLE: Oral vaccine compositions
INVENTOR(S): Brayden, David James
PATENT ASSIGNEE(S): Elan Corporation, PLC, Ire.
SOURCE: PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
DOCUMENT TYPE: Patent

Searcher : Shears 308-4994

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
WO 2000012124	A1	20000309	WO 1999-IE86	19990831
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9954411	A1	20000321	AU 1999-54411	19990831
PRIORITY APPLN. INFO.:			US 1998-98759	P 19980901
			WO 1999-IE86	W 19990831
AB	Oral vaccine formulations are disclosed having microparticles sized such that at least 50% of the microparticles are less than 5 .mu.m, preferably less than 3 .mu.m, the microparticles contg. antigen entrapped or encapsulated, e.g. by a solvent evapn. method, by a biodegradable polymer, e.g. poly(D,L-lactide-co-glycolide) . Addnl., oral vaccine formulations are disclosed having nanoparticles sized such that at least 50% of the microparticles are less than 600 nm, preferably less than 500 nm, the nanoparticles contg. antigen entrapped or encapsulated, e.g. by a coacervation method, by a biodegradable polymer, e.g. poly(D,L-lactide-co-glycolide) . Protective vaccine formulations contg. the B. pertussis antigens PTd or a combination of PTd and FHA are provided.			
IT	26780-50-7, Poly(D,L-lactide-co-glycolide) 34346-01-5, Lactic acid-glycolic acid copolymer RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (oral vaccine compns.)			
REFERENCE COUNT:	9			
REFERENCE(S):	(1) Cahill, E; VACCINE 1995, V13(5), P455 CAPLUS (2) Desai, M; PHARMACEUTICAL RESEARCH 1996, V13(12), P1838 CAPLUS (3) Henry, F; WO 9858668 A 1998 CAPLUS (4) Jones, D; INFECTION AND IMMUNITY 1996, V64(2), P489 CAPLUS (5) Medeva Holdings Bv; WO 9321950 A 1993 CAPLUS ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L8 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:65254 CAPLUS

DOCUMENT NUMBER: 132:249710

TITLE: Oral DNA Vaccination Promotes Mucosal and Systemic Immune Responses to HIV Envelope Glycoprotein

AUTHOR(S): Kaneko, Hiroshi; Bednarek, Ilona; Wierzbicki, Andrzej; Kiszka, Irena; Dmochowski, Marian; Wasik, Thomas J.; Kaneko, Yutaro; Kozbor, Danuta
CORPORATE SOURCE: Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA, 19107-6799, USASOURCE: Virology (2000), 267(1), 8-16
CODEN: VIRLAX; ISSN: 0042-6822

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In this report, we described induction of HIV envelope (env)-specific systemic and mucosal immune responses by oral vaccination of BALB/c mice with env-encoded plasmid DNA encapsulated in poly(DL-lactide-co-glycolide) (PLG) microparticles. We demonstrated that intragastric administration of the encapsulated plasmid DNA resulted in transduced expression of the env glycoprotein in the intestinal epithelium. Mice immunized orally exhibited env-specific type 1 and cytotoxic T lymphocyte (CTL) responses in spleen and the inductive (Peyer's patches) and effector (lamina propria) mucosal tissues of gut. Oral administration of PLG-encapsulated plasmid DNA encoding gp160 also induced env-specific serum antibodies, and an increased level of IgA directed to gp160 was detected in fecal washes of the immunized mice. In contrast, i.m. administration of naked or PLG-encapsulated DNA vaccine induced only systemic cellular and humoral responses to the env glycoprotein. Using an HIV env-expressing recombinant vaccinia viral intrarectal murine challenge system, we obsd. higher resistance to mucosal viral transmission in mice immunized orally than in animals injected i.m. with PLG-encapsulated plasmid DNA encoding gp160. Results of these studies demonstrate the feasibility of using orally delivered PLG microparticles contg. plasmid DNA-encoded HIV gp160 for induction of env-specific systemic and mucosal immune responses and protection against recombinant HIV env vaccinia virus challenge. (c) 2000 Academic Press.

IT 26780-50-7, Poly(DL-lactide-co-glycolide)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral DNA vaccination promotes mucosal and systemic immune responses to HIV gp160 encapsulated in poly(DL-lactide-co-glycolide) microparticles)

REFERENCE COUNT: 32
 REFERENCE(S): (1) Alexander-Miller, M; Proc Natl Acad Sci USA 1996, V93, P4102 CAPLUS
 (2) Anton, L; J Immunol 1997, V158, P2535 CAPLUS
 (3) Barouch, D; J Immunol 1998, V161, P1875 CAPLUS
 (4) Belyakov, I; J Clin Invest 1998, V102, P2072 CAPLUS
 (5) Belyakov, I; Proc Natl Acad Sci USA 1998, V95, P1709 CAPLUS
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1999:722187 CAPLUS
 DOCUMENT NUMBER: 132:255890
 TITLE: Protection against B. pertussis challenge following parenteral and oral administration of microparticles loaded with pertussis antigens
 AUTHOR(S): McClean, S.; Conway, M.; Mills, K. H. G.; Brayden, D. J.
 CORPORATE SOURCE: Elan Pharmaceutical Technologies, Dublin, 2, Ire.
 SOURCE: Proc. Int. Symp. Controlled Release Bioact. Mater. (1999), 26th, 153-154
 CODEN: PCRMEY; ISSN: 1022-0178
 PUBLISHER: Controlled Release Society, Inc.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB Administration of pertussis toxin and filamentous hemagglutinin entrapped in glycolide-lactide copolymer (PLG) microparticles provides protective immunity after either oral or parenteral immunization. I.p. immunization with PLG-entrapped antigens resulted in a distinct TH1 response, which has the potential for the development of vaccines against diseases caused by intracellular organisms.
 IT 26780-50-7, Glycolide-lactide copolymer
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (protection against Bordetella pertussis challenge after parenteral and oral administration of microparticles loaded with antigens)

REFERENCE COUNT: 4
 REFERENCE(S): (1) Mills; Infect Immun 1993, V61, P339
 (2) Mills; Infect Immun 1997, V66, P594
 (3) Moore; Vaccine 1995, V13, P1741 CAPLUS
 (4) Ramtoola; J Microencap 1992, V9, P415 CAPLUS

L8 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2001 ACS
 ACCESSION NUMBER: 1999:401693 CAPLUS

DOCUMENT NUMBER: 131:43582
 TITLE: Method to enhance an immune response of nucleic acid vaccination
 INVENTOR(S): Dalemans, Wilfried L. J.; Van Mechelen, Marcelle Paulette; Bruck, Claudine; Friede, Martin
 PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
 SOURCE: PCT Int. Appl., 42 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9930733	A1	19990624	WO 1998-EP8152	19981211
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9919678	A1	19990705	AU 1999-19678	19981211
EP 1037662	A1	20000927	EP 1998-964509	19981211
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI				
BR 9814285	A	20001003	BR 1998-14285	19981211
NO 2000003087	A	20000808	NO 2000-3087	20000615
PRIORITY APPLN. INFO.:				
			GB 1997-26555	A 19971216
			WO 1998-EP8152	W 19981211

AB This invention provides a method to enhance an immune response of nucleic acid vaccination by simultaneous administration of a polynucleotide and a polypeptide of interest. The polypeptide may be presented in a delayed release formulation. Thus, plasmid encoding RSV F/G chimeric protein and plasmid contg. gpl20 were prepd., and were vaccinated in combination with corresponding protein antigens according to vaccination procedures of the invention. Study of the prodn. of IgG isotypes indicates a more balance Th1 and Th2 (i.e. IgG2a and IgG1) response to vaccination with DNA-protein antigen mixt.

IT 26780-50-7, Poly(lactide-co-glycolide)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (biodegradable polymer coating; vaccination with DNA and protein antigen for enhancing immune response)

REFERENCE COUNT: 5

REFERENCE(S): (1) Dummy; Vaccine 1997, V15(3), P340
 (2) Letvin, N; Proceedings of the National Academy of Sciences of the United States of America 1997, V94(17), P9378 CAPLUS
 (3) Okuda, K; Vaccine 1997, V15(10), P1049 CAPLUS
 (4) Samuel, J; WO 9640066 A 1996 CAPLUS
 (5) Therexsys Ltd; WO 9728818 A 1997 CAPLUS

L8 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:707256 CAPLUS

DOCUMENT NUMBER: 130:86030

TITLE: A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2

AUTHOR(S): Singh, Manmohan; Carlson, Julia R.; Briones, Maylene; Ugozzoli, Mildred; Kazzaz, Jina; Barackman, John; Ott, Gary; O'Hagan, Derek

CORPORATE SOURCE: Adjuvant Research Division, Chiron Corporation, Emeryville, CA, 94608, USA

SOURCE: Vaccine (1998), 16(19), 1822-1827

CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A recombinant form of glycoprotein D from herpes simplex virus type-2 (gD2) was encapsulated into polylactide-co-glycolide (PLG) microparticles using a previously established solvent evapn. technique. The mean size of the microparticles was about 1 .mu.m and high encapsulation efficiency of the antigen was achieved (70-80%). The microparticles were administered i.m. to Balb/C mice and the immune responses were compared with those obtained with the oil in water adjuvant MF59. The serum IgG response to gD2 induced by the microparticles was comparable with that induced by MF59. The serum neutralization titers were also comparable for microparticles and the emulsion. However, the microparticles induced a higher IgG2a isotype response and a more potent serum IFN-.gamma. response than MF59, suggesting a more Th1 type of response. The MF59 induced higher levels of serum IL-4 and IL-5 cytokines, suggesting a more Th2 type of response.

IT 26780-50-7, Polylactide-co-glycolide

RL: BAC (Biological activity or effector, except adverse); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(comparison of biodegradable PLG microparticles and MF59 as systemic adjuvants for recombinant glycoprotein D of HSV-2)

REFERENCE COUNT: 30

REFERENCE(S): (1) Alonso, M; Vaccine 1994, V12, P299 CAPLUS

- (2) Barackman, J; STP Pharma 1998, V8(1), P41
CAPLUS
- (3) Brady, J; J Biomed Mater Res 1973, V7, P155
CAPLUS
- (6) Eldridge, J; Infect Immun 1991, V59, P2978
CAPLUS
- (7) Eldridge, J; Mol Immunol 1991, V28, P287
CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:569260 CAPLUS

DOCUMENT NUMBER: 129:280894

TITLE: Delivery of MUC1 mucin peptide by poly(d,l-**lactic-co-glycolic** acid) microspheres induces Type 1 T-helper immune responses

AUTHOR(S): Newman, Kimberley D.; Sosnowski, Deborah L.; Kwon, Glen S.; Samuel, John

CORPORATE SOURCE: Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton, AB, Can.

SOURCE: J. Pharm. Sci. (1998), 87(11), 1421-1427

CODEN: JPMSAE; ISSN: 0022-3549

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Synthetic peptides corresponding to the variable tandem repeat domain of the cancer-assocd. antigen MUC1 mucin are candidates for cancer vaccines. In our investigation mice were immunized via s.c. injection with poly(d,l-**lactic-co-glycolic** acid) (PLGA) microspheres contg. a MUC1 mucin peptide. It was hypothesized that microencapsulation of the MUC1 mucin peptide would prime for antigen-specific **Th1** responses while avoiding the need for traditional adjuvants and carrier proteins. Furthermore, an immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the peptide-loaded PLGA microspheres based on its ability to enhance **Th1** responses. The results revealed T cell specific immune responses. The cytokine secretion profiles of the T cells consisted of high levels of interferon-.gamma. with undetectable levels of interleukin-4 and interleukin-10. Moreover, incorporation of MPLA in the MUC1 peptide-loaded PLGA microspheres resulted in an increase in interferon-.gamma. prodn. The antibody response was neg. for IgM and IgG in the absence of MPLA; however, in the presence of MPLA antibody prodn. was neg. for IgM with a minimal IgG response consisting of IgG2a, IgG2b, and IgG3. Based on the antibody and cytokine profiles, it was concluded that MUC1 mucin peptide-loaded PLGA microspheres are capable of eliciting specific **Th1** responses, which may be enhanced through the use of

MPLA.

IT 26780-50-7, Poly(D,L-lactide-co-glycolide)

RL: BAC (Biological activity or effector, except adverse); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(delivery of MUC1 mucin peptide by poly(D, L-lactide-co-glycolide) microspheres induces Type 1 T-helper immune responses)

L8 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:281221 CAPLUS

DOCUMENT NUMBER: 129:45197

TITLE: Ovalbumin peptide encapsulated in poly(dl-lactic-co-glycolic acid) microspheres is capable of inducing a T helper type 1 immune response

AUTHOR(S): Newman, K. D.; Samuel, J.; Kwon, G.

CORPORATE SOURCE: Faculty of Pharmacy & Pharmaceutical Sciences, 3118 Dentistry/Pharmacy Centre, University of Alberta, Edmonton, AB, T6G 2N8, Can.

SOURCE: J. Controlled Release (1998), 54(1), 49-59

CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An ovalbumin (OVA) peptide, consisting of residues 323-339, was incorporated into poly(dl-lactic-co-glycolic acid) (PLGA) microspheres and administered to mice. It was hypothesized that microencapsulation of the peptide in PLGA microspheres would avoid the need for traditional adjuvants and bias the immune response towards a type 1 T helper (Th1) response. An immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the microspheres to det. its efficacy in enhancing a Th1 response. The specificity of the immune response was detd. using a T cell proliferation assay. The type of T helper response was detd. by anal. of the cytokine secretion profiles of the proliferating T cells. Following s.c. immunization, the results revealed a T cell-specific immune response for the encapsulated OVA peptide both with and without MPLA. The cytokine profiles revealed high levels of IFN-.gamma. with very low levels of IL-4 and IL-10, suggesting a Th1 response. Furthermore, incorporation of MPLA in the peptide loaded PLGA microspheres resulted in an increase in the prodn. of IFN-.gamma.. Hence, peptide-loaded PLGA microspheres are capable of eliciting a specific Th1 immune response, which may be further enhanced in the presence MPLA.

IT 34346-01-5, Glycolic acid-lactic acid copolymer

09/386266

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ovalbumin peptide encapsulated in poly(**lactic-co-glycolic** acid) microspheres induction of immune response)

L8 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1996:91408 CAPLUS

DOCUMENT NUMBER: 124:172860

TITLE: Immunization with a soluble recombinant HIV protein entrapped in biodegradable microparticles induces HIV-specific CD8+ cytotoxic T lymphocytes and CD4+ **Th1** cells

AUTHOR(S): Moore, Anne; McGuirk, Peter; Adams, Susan; Jones, Wendy C.; McGee, J. Paul; O'Hagan, Derek T.; Mills, Kingston H. G.

CORPORATE SOURCE: Biology Dep., St. Patrick's College, Maynooth, Ire.

SOURCE: Vaccine (1995), 13(18), 1741-9
CODEN: VACCDE; ISSN: 0264-410X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB One of the major obstacles to the development of successful recombinant vaccines against human immunodeficiency virus (HIV) and other intracellular pathogens is the identification of a safe and effective vaccine delivery system for the induction of cell mediated immunity with sol. protein antigens. In this study it was demonstrated that immunization with a recombinant HIV envelope (env) protein entrapped in biodegradable poly(**lactide-co-glycolide**) (**PLG**) microparticles induced consistent HIV-specific CD4+ and CD8+ T-cell responses in mice. Major histocompatibility complex (MHC) class I-restricted cytotoxic T lymphocytes (CTL) responses were detected following a single systematic immunization with gp120 entrapped microparticles and when given by the intranasal (i.n.) route induced HIV-specific CD8+ CTL and secretory IgA. Furthermore immunization with gp120 entrapped in microparticles generated CD4+ T cells that secreted moderate to high levels of IFN-.gamma.. Therefore, PLG microparticles are a safe and effective means of delivering antigen to the appropriate processing site for the generation of class I-restricted CTL, and are also capable of inducing **Th1** cells.

IT 26780-50-7

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(immunization with HIV gp120 entrapped in biodegradable microparticles induces HIV-specific CD8+ cytotoxic T lymphocytes and CD4+ **Th1** cells)

L8 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2001 ACS

Searcher : Shears 308-4994

09/386266

ACCESSION NUMBER: 1995:612079 CAPLUS
DOCUMENT NUMBER: 123:122831
TITLE: Immune responses and protection against
Bordetella pertussis infection after intranasal
immunization of mice with filamentous
hemagglutinin in solution or incorporated in
biodegradable microparticles
AUTHOR(S): Cahill, E. S.; O'Hagan, D. T.; Illum, L.;
Barnard, A.; Mills, K. H. G.; Redhead, K.
CORPORATE SOURCE: Department Pharmaceutical Sciences, Nottingham
University, Nottingham, UK
SOURCE: Vaccine (1995), 13(5), 455-62
CODEN: VACCDE; ISSN: 0264-410X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The intranasal (i.n.) immunization of mice with Bordetella pertussis filamentous hemagglutinin (FHA) either as a soln. or incorporated in biodegradable microparticles induced very similar immune responses. Both resulted in strong systemic IgG responses to FHA and good levels of anti-FHA IgG and IgA in the lungs of immunized mice. In comparison, the i.p. immunization of mice with FHA, as a soln., engineered anti-FHA antibody responses which were stronger for serum IgG, similar for lung IgG and lower for lung IgA. The anti-FHA antibody levels, as measured by immunosorbent assay, were shown to correlate with their functional activity in the blocking of B. pertussis adhesion to HeLa tissue-culture cells. All three forms of immunization appeared to stimulate T-cell responses as assessed by in vitro antigen-specific spleen cell proliferation and IL-2 secretion indicative of a Th1 type response, however, cells from i.p. immunized mice only secreted low levels of IL-5. All three methods of FHA immunization provided mice with significant protection against subsequent aerosol challenge with virulent B. pertussis. Mice which had been immunized intra-nasally eliminated the bacteria from their lungs slightly more rapidly than i.p. immunized mice, demonstrating the efficacy of intranasal administration of FHA in soln. and in the more practical biodegradable microparticle form.

IT 26780-50-7, Glycolide-lactide copolymer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(intranasal immunization with biodegradable microparticles contg.
filamentous hemagglutinin against Bordetella pertussis infection)

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, TOXLIT,
TOXLINE, PHIC, PHIN' ENTERED AT 15:02:57 ON 04 JUN 2001)

L9 28 S L8
L10 15 DUP REM L9 (13 DUPLICATES REMOVED)

L10 ANSWER 1 OF 15 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 1

Searcher : Shears 308-4994

09/386266

ACCESSION NUMBER: 2001:189374 BIOSIS
DOCUMENT NUMBER: PREV200100189374
TITLE: Protection against Bordetella pertussis infection following parenteral or oral immunization with antigens entrapped in biodegradable particles: Effect of formulation and route of immunization on induction of Th1 and Th2 cells.
AUTHOR(S): Conway, Margaret A.; Madrigal-Estebas, Laura; McClean, Siobhan; Brayden, David J.; Mills, Kingston H. G. (1)
CORPORATE SOURCE: (1) Infection and Immunity Group, Department of Biology, Institute of Immunology, National University of Ireland, Maynooth, Co. Kildare: kingston.mills@may.ie Ireland
SOURCE: Vaccine, (28 February, 2001) Vol. 19, No. 15-16, pp. 1940-1950. print.
ISSN: 0264-410X.
DOCUMENT TYPE: Article
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The immunogenicity and protective efficacy of systemically and orally delivered pertussis antigens entrapped in either microparticle poly-lactide-co-glycolide (PLG) or nanoparticle PLG formulations were evaluated in a murine respiratory challenge model for infection with Bordetella pertussis. The results demonstrate that immunization with two parenteral doses of 1 mug or three oral doses of 100 mug of pertussis toxoid (PTd) and filamentous haemagglutinin (FHA) encapsulated in PLG conferred a high level of protection against B. pertussis challenge. Furthermore protection could be generated with a single parenteral immunization with a combined microparticle and nanoparticle formulation. However, the route of immunization and the size of the particles affected the type of T cell response induced. Parenteral immunization with PTd and FHA entrapped in PLG microparticles elicits a potent type 1 T cell response and potent antibody response when given by the intraperitoneal (i.p.) or intramuscular (i.m.) route. Incontrast, nanoparticle formulations favoured the induction of Th2 cells.

L10 ANSWER 2 OF 15 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-587123 [55] WPIDS
DOC. NO. CPI: C2000-174971
TITLE: Microemulsion having an adsorbent surface comprising a microdroplet emulsion consisting of a metabolizable oil and an emulsifying agent which is a detergent, useful as a vaccine to treat bacterial, viral, and parasitic infection.
DERWENT CLASS: A96 B04 C06 D16

Searcher : Shears 308-4994

09/386266

INVENTOR(S): BARACKMAN, J; DONNELLY, J; KAZZAZ, J; O'HAGAN, D;
OTT, G S; SINGH, M; UGOZZOLI, M
PATENT ASSIGNEE(S): (CHIR) CHIRON CORP
COUNTRY COUNT: 90
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 2000050006	A2	20000831	(200055)*	EN	93
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM					
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ					
LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU					
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000028757	A	20000914	(200063)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

WO 2000050006	A2	WO 2000-US3331	20000209
AU 2000028757	A	AU 2000-28757	20000209

FILING DETAILS:

PATENT NO	KIND	PATENT NO

AU 2000028757	A Based on	WO 200050006

PRIORITY APPLN. INFO: US 1999-161997 19991028; US 1999-121858
19990226; US 1999-146391 19990729

AN 2000-587123 [55] WPIDS

AB WO 200050006 A UPAB: 20001102

NOVELTY - A microemulsion having an adsorbent surface comprising a microdroplet emulsion consisting of a metabolizable oil and an emulsifying agent (a detergent), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) a method (M1) of immunizing a host animal against a viral, bacterial or parasitic infection comprising administering the microemulsion;

(2) a method (M2) of inducing a Th1 immune response in a host animal comprising administering the microemulsion;

(3) a composition comprising the microemulsion and a microparticle having an adsorbent surface, where the microparticle comprises a polymer selected from a poly(alpha -hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a

Searcher : Shears 308-4994

polyanhydride, and a polycyanoacrylate, and a second detergent.

ACTIVITY - Antiviral; antibacterial; antiparasitic.

MECHANISM OF ACTION - Vaccine.

PLG (poly(D,L-lactide))/CTAB (hexadecyltrimethylammonium), **PLG**/SDS (sodium dodecyl sulfate), and **PLG**/PVA (polyvinyl alcohol) microparticles were formed. Eight groups of microparticles were made in order to analyze the different effects of immunizing mice with adsorbed antigen p55 gag protein on microparticles versus providing free soluble p55 gag, and to determine the effects of having the adjuvant CpG (20 base long single stranded oligonucleotides with a CpG motif) also adsorbed on other microparticles or provided in free soluble form. Group 1 used soluble p55 gag protein mixed with **PLG**/CTAB, group 2 used **PLG**/SDS particles with adsorbed p55 gag mixed with **PLG**/CTAB particles with adsorbed CpG, group 3 used **PLG**/SDS particles with adsorbed p55 gag mixed with free CpG, group 4 used **PLG**/SDS particles with adsorbed p55 gag and no adjuvant, group 5 used **PLG**/PVA particles with p55 gag entrapped, mixed with **PLG**/CTAB particles with CpG adsorbed, group 6 was a control, used no antigen and soluble CpG, group 7 was control, used soluble p55 gag protein and no adjuvants, and group 8 was control, used only vaccinia virus (vv gag) expressing the gag gene, and no adjuvants. For each group mice were immunized with sufficient quantities of microparticles or free molecules such that the dosage of p55 gag antigen and CpG adjuvant were 25 micro g each (if present in the group), except for group 8 which was used at a dosage of 10 multiply 10⁷ plaque forming units (pfu). The route of immunization was intramuscular (IM), except for group 8 which used intraperitoneal (IP). Following immunization, serum anti-p55 IgG titer was measured. Serum titers for groups 1-8 were 43250, 49750, 62750, 7550, 127000, 38, 2913, and 938, respectively.

USE - The microemulsion is useful as a vaccine for treating bacterial, viral and parasitic infections.

Dwg.0/4

L10 ANSWER 3 OF 15 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
 ACCESSION NUMBER: 2000-237780 [20] WPIDS
 DOC. NO. CPI: C2000-072440
 TITLE: Inducing polarized immune response to an antigen preferably Bordetella pertussis antigen, comprises administering microparticles containing the entrapped or encapsulated antigen.
 DERWENT CLASS: A23 A96 B04 D16
 INVENTOR(S): BRAYDEN, D J
 PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC
 COUNTRY COUNT: 88
 PATENT INFORMATION:

09/386266

PATENT NO KIND DATE WEEK LA PG

WO 2000012125 A1 20000309 (200020)* EN 66
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC
MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 9954412 A 20000321 (200031)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012125	A1	WO 1999-IE87	19990831
AU 9954412	A	AU 1999-54412	19990831

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9954412	A Based on	WO 200012125

PRIORITY APPLN. INFO: US 1998-98760 19980901

AN 2000-237780 [20] WPIDS

AB WO 200012125 A UPAB: 20000426

NOVELTY - Inducing a **TH1** polarized immune response to an antigen comprising parenterally administering microparticles (I), at least 50% of which are less than 5 μ m, comprising the antigen entrapped or encapsulated by a biodegradable polymer, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) a method of inducing a **TH2** polarized immune response to an antigen comprising parenterally administering nanoparticles (II), at least 50% of which are less than 600 nm, comprising the antigen entrapped or encapsulated by a biodegradable polymer;

(2) a method of inducing a combined **TH1** and **TH2** immune response to an antigen comprising parenterally administering (I) in combination with (II);

(3) a vaccine formulation for enhancing the **TH1** immune response to at least one antigen and adapted for parenteral administration, comprising (I) and a carrier;

(4) a vaccine formulation for enhancing the **TH2** immune response to at least one antigen and adapted for parenteral administration, comprising (II) and a carrier;

(5) a method of providing protective immunity against

Searcher : Shears 308-4994

Bordetella pertussis, comprising parenterally administering (I) comprising at least one *B. pertussis* antigen; and

(6) a method of providing protective immunity against *B. pertussis*, comprising parenterally administering (II) comprising at least one *B. pertussis* antigen.

ACTIVITY - Vaccine; Immunomodulator. Groups of 20 balb/c were immunized parenterally (i.p.) at week 0 and at week 4 with 1 mu g each of inactivated pertussis toxin (PTd) and filamentous hemagglutinin (FHA) entrapped in **poly(DL-lactide-co-glycolide) (PLGA)** microparticles; 1 mu g each of PTd and FHA adsorbed to alum; 1 mu g of PTd entrapped in **PLGA** microparticles or 1 mu g FHA entrapped in **PLGA** microparticles. The control group received empty **PLGA** microparticles. The ability of **PLGA**-entrapped antigen (low dose) to protect against *B. pertussis* was examined in the respiratory challenge model. The mice were sacrificed at different time points over a two-week period after the aerosol challenge and lung homogenates were cultured and examined after 5 days culture for the number of colony forming units (CFU). The results 3, 7, 10 and 14 days after challenge reveal a high level of protection with 1 mu g of FHA and PTd either microencapsulated in **PLGA** or adsorbed to alum. Both treatments provide substantial clearance of *B. pertussis* by the third day post challenge following challenge 6 weeks after immunization.

MECHANISM OF ACTION - Vaccine.

USE - The methods provide protective immunity against *B. pertussis* and compositions can be used in the preparation of a *B. pertussis* vaccine and for the vaccination against *B. pertussis*.
Dwg.0/10

L10 ANSWER 4 OF 15 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD
ACCESSION NUMBER: 2000-270741 [23] WPIDS
DOC. NO. CPI: C2000-082491
TITLE: Oral vaccine, useful particularly for preventing pertussis, comprises micro- or nano-particles, of controlled size, containing antigen and biodegradable polymer matrix.
DERWENT CLASS: A23 A96 B04 D16
INVENTOR(S): BRAYDEN, D J
PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC
COUNTRY COUNT: 88
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG

WO 2000012124	A1	20000309	(200023)*	EN	51
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					

09/386266

MW NL OA PT SD SE SL SZ UG ZW
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM
EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ
LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD
SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW
AU 9954411 A 20000321 (200031)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000012124	A1	WO 1999-IE86	19990831
AU 9954411	A	AU 1999-54411	19990831

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9954411	A Based on	WO 200012124

PRIORITY APPLN. INFO: US 1998-98759 19980901

AN 2000-270741 [23] WPIDS

AB WO 200012124 A UPAB: 20000516

NOVELTY - An oral vaccine (A) comprising a carrier and microparticles (MP) or nanoparticles (NP) comprising at least one antigen (Ag) entrapped or encapsulated in a biodegradable polymer (I), is new. At least 50% of MP are smaller than 5 μ m, and at least 50% of NP are smaller than 600nm.

ACTIVITY - Antibacterial; antiviral; antiparasitic; anticancer. Mice were treated orally, three times at 4 week intervals, with 0.1 μ g each of inactivated pertussis toxin and FHA (filamentous hemagglutinin) encapsulated in poly(lactic-co-glycolic acid) microparticles. Two weeks after the last injection they were challenged, by aerosol, with 104-105 colony-forming units (cfu) per lung of B. pertussis. Periodically the number of cfu in lung homogenate was determined. In vaccinated animals the bacteria had been entirely cleared after 14 days, at which time control animals carried about 50000 bacteria per lung.

MECHANISM OF ACTION - Vaccine.

USE - (A) are specifically used to induce a protective response against Bordetella pertussis (claimed), or, more generally, any infectious or pathogenic agent or cancer.

ADVANTAGE - By altering the nature of the carrier, method of loading and route of administration, the vaccine may be designed to provide a Th1, Th2 or mixed response.

Dwg.0/7

L10 ANSWER 5 OF 15 TOXLIT

Searcher : Shears 308-4994

09/386266

ACCESSION NUMBER: 2000:64553 TOXLIT
DOCUMENT NUMBER: CA-133-213150A
TITLE: Microemulsions with adsorbed macromolecules and
microparticles for stimulation of immunity.
AUTHOR: O'Hagan D; Ott GS; Donnelly J; Kazzaz J; Ugozzoli M;
Singh M; Barackman J
SOURCE: (2000). PCT Int. Appl. PATENT NO. 0050006 08/31/2000
(Chiron Corp.).
CODEN: PIXXD2.
PUB. COUNTRY: UNITED STATES
DOCUMENT TYPE: Patent
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 133:213150
ENTRY MONTH: 200009

AB Microparticles with adsorbent surfaces, methods of making such
microparticles, and uses thereof, are disclosed. The microparticles
comprise a polymer, such as a poly(.alpha.-hydroxy acid), a
polyhydroxy butyric acid, a polycaprolactone, a polyorthoester, a
polyanhydride, and the like, and are formed using cationic, anionic,
or nonionic detergents. The surface of the microparticles
efficiently adsorb biol. active macromols., such as DNA,
polypeptides, antigens, and adjuvants. Also provided are compns. of
an oil droplet emulsion having a metabolizable oil and an
emulsifying agent. Immunogenic compns. having an immunostimulating
amt. of an antigenic substance, and an immunostimulating amt. of an
adjuvant compn. are also provided. Methods of stimulating an immune
response, methods of immunizing a host animal against a viral,
bacterial, or parasitic infection, and methods of increasing a
Th1 immune response in a host animal by administering to the
animal an immunogenic compn. of the microparticles, and/or
microemulsions of the invention, are also provided.

L10 ANSWER 6 OF 15 TOXLIT

ACCESSION NUMBER: 2000:8407 TOXLIT
DOCUMENT NUMBER: CA-132-199032J
TITLE: Method for inducing a cell-mediated immune response
and parenteral vaccine formulations therefor.
AUTHOR: Brayden DJ
SOURCE: (2000). PCT Int. Appl. PATENT NO. 0012125 03/09/2000
(Elan Corporation, PLC).
CODEN: PIXXD2.
PUB. COUNTRY: IRELAND
DOCUMENT TYPE: Patent
FILE SEGMENT: CA
LANGUAGE: English
OTHER SOURCE: CA 132:199032
ENTRY MONTH: 200003

Searcher : Shears 308-4994

AB A method of inducing either a **TH1** polarized immune response, a **TH2** polarized immune response, or a combined **TH1** and **TH2** response to an antigen, and assocd. vaccine formulations, are disclosed. A method is provided for inducing a polarized **TH1** response by parenteral administration of microparticles sized such that at least 50% of the microparticles are less than 5 .mu.m, the microparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Addnl., a method is provided for inducing a polarized **TH2** response by parenteral administration of nanoparticles sized such that at least 50% of the nanoparticles are less than 600 nm, the nanoparticles contg. antigen entrapped or encapsulated by a biodegradable polymer. Vaccine formulations contg. the B. pertussis antigens PTd, FHA, or a combination of PTd and FHA, are provided.

L10 ANSWER 7 OF 15 MEDLINE DUPLICATE 2
 ACCESSION NUMBER: 2001128516 MEDLINE
 DOCUMENT NUMBER: 20507192 PubMed ID: 11052820
 TITLE: Macrophage activation for the production of immunostimulatory cytokines by delivering interleukin 1 via biodegradable microspheres.
 AUTHOR: Mullerad J; Cohen S; Voronov E; Apte R N
 CORPORATE SOURCE: Department of Biotechnology Engineering, Ben-Gurion University of the Negev, Beer-Sheva, 84105, Israel.
 SOURCE: CYTOKINE, (2000 Nov) 12 (11) 1683-90.
 Journal code: A52; 9005353. ISSN: 1043-4666.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200103
 ENTRY DATE: Entered STN: 20010404
 Last Updated on STN: 20010404
 Entered PubMed: 20001218
 Entered Medline: 20010301

AB Interleukin 1alpha (IL-1alpha), a pleiotropic cytokine with multiple anti-tumour activities, has been investigated in our laboratory for its potential to serve as an immunotherapeutic agent. In the present study, an attempt was made to direct IL-1alpha to macrophages, in order to induce their immunoregulatory activities. For that purpose, IL-1alpha was encapsulated within biodegradable poly(lactic /glycolic acid) microspheres, 1-5 microm diameter in size. The microspheres were efficiently taken-up by macrophages in culture and after intraperitoneal injection into mice. In culture, phagocytosis of the microspheres reached saturation within 3 h and there was no apparent effect of polymer type on the extent of uptake. In vivo uptake of human IL-1alpha-microspheres by the macrophages lead to cell activation, as evidenced by the enhanced

production of murine IL-1alpha, IL-6 and IL-12. Control microspheres, containing bovine serum albumin, induced only background to low levels of cytokine production. These cytokines, when expressed by or secreted from macrophages, may stimulate in situ diverse immune and inflammatory responses, including T cell-mediated immune responses, such as the development of Th(1) cells and cytotoxic lymphocytes. Thus, directing IL-1alpha into macrophages, via the appropriate microspheres, may serve as a unique mean to activate these cells to participate in anti-tumour immune responses in situ.
Copyright 2000 Academic Press.

L10 ANSWER 8 OF 15 MEDLINE DUPLICATE 3
 ACCESSION NUMBER: 1999231930 MEDLINE
 DOCUMENT NUMBER: 99231930 PubMed ID: 10217578
 TITLE: Induction of cellular immunity to a mycobacterial antigen adsorbed on lamellar particles of lactide polymers.
 AUTHOR: Venkataprasad N; Coombes A G; Singh M; Rohde M; Wilkinson K; Hudecz F; Davis S S; Vordermeier H M
 CORPORATE SOURCE: MRC Clinical Sciences Centre, Tuberculosis & Related Infections Unit, Hammersmith Hospital, London, UK.
 SOURCE: VACCINE, (1999 Apr 9) 17 (15-16) 1814-9.
 Journal code: X60; 8406899. ISSN: 0264-410X.
 PUB. COUNTRY: ENGLAND: United Kingdom
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199907
 ENTRY DATE: Entered STN: 19990715
 Last Updated on STN: 19990715
 Entered Medline: 19990708

AB Microspheres prepared from synthetic, biodegradable poly (L-lactide) [PLA] and copolymers of **lactide** and glycolide such as **poly (DL lactide co-glycolide)** [PLG] have been widely investigated for controlled delivery of encapsulated vaccine antigens. In this study we describe novel lamellar microparticles produced from PLA to which protein antigens can be adsorbed. These particles when administered to mice, induced strong Th1-type T cell responses to the adsorbed 38 kDa protein antigen from M. tuberculosis characterised by high levels of Interferon-gamma. In addition to proteins, we were also able to adsorb synthetic peptides resulting in specific T cell proliferation. Induction of strong cellular immunity together with the versatility of antigen adsorption to these particles should make such lamellae a useful tool to deliver protective antigens from intracellular pathogens.

L10 ANSWER 9 OF 15 TOXLIT

ACCESSION NUMBER: 1999:138539 TOXLIT

DOCUMENT NUMBER: CA-132-255890B

TITLE: Protection against B. pertussis challenge following parenteral and oral administration of microparticles loaded with pertussis antigens.

AUTHOR: McClean S; Conway M; Mills KHG; Brayden DJ

CORPORATE SOURCE: Elan Pharmaceutical Technologies, Dublin

SOURCE: Proc. Int. Symp. Controlled Release Bioact. Mater., (1999). Vol. 26th, pp. 153-154.
CODEN: PCRMEY. ISSN. 1022-0178.

PUB. COUNTRY: IRELAND

DOCUMENT TYPE: Journal; Journal Article

FILE SEGMENT: CA

LANGUAGE: English

OTHER SOURCE: CA 132:255890

ENTRY MONTH: 200004

AB Administration of pertussis toxin and filamentous hemagglutinin entrapped in glycolide-lactide copolymer (PLG) microparticles provides protective immunity after either oral or parenteral immunization. I.p. immunization with PLG -entrapped antigens resulted in a distinct TH1 response, which has the potential for the development of vaccines against diseases caused by intracellular organisms.

L10 ANSWER 10 OF 15 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE
4

ACCESSION NUMBER: 1998349284 EMBASE

TITLE: A comparison of biodegradable microparticles and MF59 as systemic adjuvants for recombinant gD from HSV-2.

AUTHOR: Singh M.; Carlson J.R.; Briones M.; Ugozzoli M.; Kazzaz J.; Barackman J.; Ott G.; O'Hagan D.

CORPORATE SOURCE: M. Singh, Adjuvant Research Division, Chiron Corporation, 4560 Horton Street, Emeryville, CA 94608, United States

SOURCE: Vaccine, (1998) 16/19 (1822-1827).
Refs: 30

ISSN: 0264-410X CODEN: VACCDE

PUBLISHER IDENT.: S 0264-410X(98)00179-0

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Conference Article

FILE SEGMENT: 026 Immunology, Serology and Transplantation
037 Drug Literature Index
039 Pharmacy

LANGUAGE: English

SUMMARY LANGUAGE: English

AB A recombinant form of glycoprotein D from herpes simplex virus type-2 (gD2) was encapsulated into polylactide-co-glycolide (PLG)

microparticles using a previously established solvent evaporation technique. The mean size of the microparticles was about 1 .mu.m and high encapsulation efficiency of the antigen was achieved (70-80%). The microparticles were administered intramuscularly to Balb/C mice and the immune responses were compared with those obtained with the oil in water adjuvant MF59. The serum IgG response to gD2 induced by the microparticles was comparable with that induced by MF59. The serum neutralization titres were also comparable for microparticles and the emulsion. However, the microparticles induced a higher IgG2a isotype response and a more potent serum IFN-.gamma. response than MF59, suggesting a more **Th1** type of response. The MF59 induced higher levels of serum IL-4 and IL-5 cytokines, suggesting a more Th2 type of response.

L10 ANSWER 11 OF 15 MEDLINE DUPLICATE 5
 ACCESSION NUMBER: 1999030495 MEDLINE
 DOCUMENT NUMBER: 99030495 PubMed ID: 9811500
 TITLE: Delivery of MUC1 mucin peptide by Poly(d,l-lactic-co-glycolic acid) microspheres induces type 1 T helper immune responses.
 AUTHOR: Newman K D; Sosnowski D L; Kwon G S; Samuel J
 CORPORATE SOURCE: Faculty of Pharmacy and Pharmaceutical Sciences, University of Alberta, Edmonton Alberta, Canada.
 SOURCE: JOURNAL OF PHARMACEUTICAL SCIENCES, (1998 Nov) 87 (11) 1421-7.
 Journal code: JO7; 2985195R. ISSN: 0022-3549.
 PUB. COUNTRY: United States
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199812
 ENTRY DATE: Entered STN: 19990115
 Last Updated on STN: 20000303
 Entered Medline: 19981223

AB Synthetic peptides corresponding to the variable tandem repeat domain of the cancer-associated antigen MUC1 mucin are candidates for cancer vaccines. In our investigation mice were immunized via subcutaneous injection with poly(d,l-lactic-co-glycolic acid) (PLGA) microspheres containing a MUC1 mucin peptide. It was hypothesized that microencapsulation of the MUC1 mucin peptide would prime for antigen-specific **Th1** responses while avoiding the need for traditional adjuvants and carrier proteins. Furthermore, an immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the peptide-loaded PLGA microspheres based on its ability to enhance **Th1** responses. The results revealed T cell specific immune responses. The cytokine secretion profiles of the T cells consisted of high

levels of interferon-gamma with undetectable levels of interleukin-4 and interleukin-10. Moreover, incorporation of MPLA in the MUC1 peptide-loaded PLGA microspheres resulted in an increase in interferon-gamma production. The antibody response was negative for IgM and IgG in the absence of MPLA; however, in the presence of MPLA antibody production was negative for IgM with a minimal IgG response consisting of IgG2a, IgG2b, and IgG3. Based on the antibody and cytokine profiles, it was concluded that MUC1 mucin peptide-loaded PLGA microspheres are capable of eliciting specific **Th1** responses, which may be enhanced through the use of MPLA.

L10 ANSWER 12 OF 15 MEDLINE DUPLICATE 6
 ACCESSION NUMBER: 1998412934 MEDLINE
 DOCUMENT NUMBER: 98412934 PubMed ID: 9741903
 TITLE: Ovalbumin peptide encapsulated in poly(d,l
lactic-co-glycolic acid)
 microspheres is capable of inducing a T helper type 1
 immune response.
 AUTHOR: Newman K D; Samuel J; Kwon G
 CORPORATE SOURCE: 3118 Dentistry/Pharmacy Centre, Faculty of Pharmacy &
 Pharmaceutical Sciences, University of Alberta,
 Edmonton, Canada.
 SOURCE: JOURNAL OF CONTROLLED RELEASE, (1998 Jun) 54 (1)
 49-59.
 Journal code: C46; 8607908. ISSN: 0168-3659.
 PUB. COUNTRY: Netherlands
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199811
 ENTRY DATE: Entered STN: 19990106
 Last Updated on STN: 19990106
 Entered Medline: 19981118

AB An ovalbumin (OVA) peptide, consisting of residues 323-339, was incorporated into poly(d,l **lactic-co-glycolic** acid) (PLGA) microspheres and administered to mice. It was hypothesized that microencapsulation of the peptide in PLGA microspheres would avoid the need for traditional adjuvants and bias the immune response towards a type 1 T helper (**Th1**) response. An immunomodulator, monophosphoryl lipid A (MPLA), was incorporated into the microspheres to determine its efficacy in enhancing a **Th1** response. The specificity of the immune response was determined using a T cell proliferation assay. The type of T helper response was determined by analysis of the cytokine secretion profiles of the proliferating T cells. Following s.c. immunization, the results revealed a T cell-specific immune response for the encapsulated OVA peptide both with and without MPLA. The cytokine profiles revealed high levels of IFN-gamma with very low

levels of IL-4 and IL-10, suggesting a **Th1** response. Furthermore, incorporation of MPLA in the peptide loaded PLGA microspheres resulted in an increase in the production of IFN-gamma. Hence, peptide-loaded PLGA microspheres are capable of eliciting a specific **Th1** immune response, which may be further enhanced in the presence MPLA.

L10 ANSWER 13 OF 15 MEDLINE

DUPLICATE 7

ACCESSION NUMBER: 96264828 MEDLINE
 DOCUMENT NUMBER: 96264828 PubMed ID: 8701587
 TITLE: Immunization with a soluble recombinant HIV protein entrapped in biodegradable microparticles induces HIV-specific CD8+ cytotoxic T lymphocytes and CD4+ **Th1** cells.
 AUTHOR: Moore A; McGuirk P; Adams S; Jones W C; McGee J P; O'Hagan D T; Mills K H
 CORPORATE SOURCE: Biology Department, St. Patrick's College, Maynooth, Co. Kildare, Ireland.
 SOURCE: VACCINE, (1995 Dec) 13 (18) 1741-9.
 Journal code: X60; 8406899. ISSN: 0264-410X.
 PUB. COUNTRY: ENGLAND: United Kingdom
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199609
 ENTRY DATE: Entered STN: 19960912
 Last Updated on STN: 19960912
 Entered Medline: 19960904

AB One of the major obstacles to the development of successful recombinant vaccines against human immunodeficiency virus (HIV) and other intracellular pathogens is the identification of a safe and effective vaccine delivery system for the induction of cell mediated immunity with soluble protein antigens. In this study it was demonstrated that immunization with a recombinant HIV envelop (env) protein entrapped in biodegradable poly(lactide-co-glycolide) (PLG) microparticles induced consistent HIV-specific CD4+ and CD8+ T-cell responses in mice. Major histocompatibility complex (MHC) class I-restricted cytotoxic T lymphocytes (CTL) responses were detected following a single systemic immunization with gp120 entrapped microparticles and when given by the intranasal (i.n.) route induced HIV-specific CD8+ CTL and secretory IgA. Furthermore immunization with gp120 entrapped in microparticles generated CD4+ T cells that secreted moderate to high levels of IFN-gamma. Therefore, PLG microparticles are a safe and effective means of delivering antigen to the appropriate processing site for the generation of class I-restricted CTL, and are also capable of inducing **Th1** cells.

L10 ANSWER 14 OF 15 TOXLIT

ACCESSION NUMBER: 1995:91346 TOXLIT

DOCUMENT NUMBER: CA-123-122831A

TITLE: Immune responses and protection against Bordetella pertussis infection after intranasal immunization of mice with filamentous hemagglutinin in solution or incorporated in biodegradable microparticles.

AUTHOR: Cahill ES; O'Hagan DT; Illum L; Barnard A; Mills KH G; Redhead K

CORPORATE SOURCE: Department Pharmaceutical Sciences, Nottingham University, Nottingham

SOURCE: Vaccine, (1995). Vol. 13, No. 5, pp. 455-62.

CODEN: VACCD. ISSN. 0264-410X.

PUB. COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

FILE SEGMENT: CA

LANGUAGE: English

OTHER SOURCE: CA 123:122831

ENTRY MONTH: 199509

AB The intranasal (i.n.) immunization of mice with Bordetella pertussis filamentous hemagglutinin (FHA) either as a soln. or incorporated in biodegradable microparticles induced very similar immune responses. Both resulted in strong systemic IgG responses to FHA and good levels of anti-FHA IgG and IgA in the lungs of immunized mice. In comparison, the i.p. immunization of mice with FHA, as a soln., engineered anti-FHA antibody responses which were stronger for serum IgG, similar for lung IgG and lower for lung IgA. The anti-FHA antibody levels, as measured by immunosorbent assay, were shown to correlate with their functional activity in the blocking of B. pertussis adhesion to HeLa tissue-culture cells. All three forms of immunization appeared to stimulate T-cell responses as assessed by in vitro antigen-specific spleen cell proliferation and IL-2 secretion indicative of a Th1 type response, however, cells from i.p. immunized mice only secreted low levels of IL-5. All three methods of FHA immunization provided mice with significant protection against subsequent aerosol challenge with virulent B. pertussis. Mice which had been immunized intra-nasally eliminated the bacteria from their lungs slightly more rapidly than i.p. immunized mice, demonstrating the efficacy of intranasal administration of FHA in soln. and in the more practical biodegradable microparticle form.

L10 ANSWER 15 OF 15 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 95368128 EMBASE

DOCUMENT NUMBER: 1995368128

TITLE: The common mucosal immune system for the reproductive tract: Basic principles applied toward an AIDS vaccine.

AUTHOR: Kiyono H.; Miller C.J.; Lu Y.; Lehner T.; Cranage M.;
Huang Y.T.; Kawabata S.; Marthas M.; Roberts B.;
Nedrud J.G.; Lamm M.E.; Bergmeier L.; Brookes R.; Tao
L.; McGhee J.R.

CORPORATE SOURCE: Collaborat. Mucosal Imm. Res. Group, Immunobiology
Vaccine Center, University of Alabama, Birmingham, AL
35294, United States

SOURCE: Advanced Drug Delivery Reviews, (1995) 18/1 (23-51).
ISSN: 0169-409X CODEN: ADDREP

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 004 Microbiology
010 Obstetrics and Gynecology
013 Dermatology and Venereology
026 Immunology, Serology and Transplantation
028 Urology and Nephrology
030 Pharmacology
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The concept of the Collaborative Mucosal Immunization Research Group for AIDS (CMIG) was originally conceived by the AIDS Vaccine Branch, National Institute of Allergy and Infectious Diseases (NIAID) in order to provide support for a cooperative research environment for the development of mucosal immunity to AIDS. We have purposely organized five groups of investigators at five different locations to determine how effective mucosal immunity to AIDS can be optimally approached. CMIG recognizes that both rectal (homosexual) as well as vaginal (heterosexual) infections with HIV are two of the major ways that AIDS currently disseminates through the human population. Thus, we have chosen the SIV model of infection of rhesus macaques, but more importantly the CMIG have joined two of our five components in order to use the significant expertise developed for mucosal transmission of SIV and immunity. Thus, we have brought the extensive expertise with vaginal and rectal immunization and immunity to spread [Drs. Chris Miller and Marta Marthas, California Regional Primate Research Center (CRPRC), Davis and Drs. Thomas Lehner and Martin Cranage, United Medical and Dental School Guy's Hospital, London and the Centre for Applied Microbiology and Research (Guy's/CAMR)]. Two additional components were added in order to perform mucosal immune response studies required to develop and to optimize a mucosal vaccine. First, extensive CD4+ T helper (Th) cell (e.g., Th1 and Th2) and CD8+ T cell subset studies are a major effort of the coordinating group at the University of Alabama at Birmingham (Drs. Hiroshi Kiyono and Jerry R. McGhee). This component is closely interacting with both the CRPRC and Guy's/CAMR components in terms of SIV-specific CD4+ and CD8+ T cell subset responses. For example, SIV-specific CTL

responses are jointly examined using different techniques by CRPRC, Guy's/CAMR and UAB investigators. Further, it is also important to examine a balance between SIV-specific and Th1 and Th2 cell responses following mucosal immunization since the Th cell-derived cytokines are essential for the induction of appropriate antigen-specific mucosal immune responses. This issue is currently being extensively examined by the CMIG effort and a summary of our findings is discussed in this review. A major question in mucosal immunity involves the functions of secretory IgA (S-IgA) antibodies and this area is of particular importance in rectal and reproductive tract immunity. A novel and exciting in vitro epithelial cell assay system is used to study how effectively S-IgA neutralizes SIV infection (Drs. John Huang, John Nedrud and Michael Lamm, Case Western Reserve, Cleveland). A clear advantage of this CMIG effort is the unique expertise in design of mucosal delivery systems for an AIDS vaccine. We are using state-of-the-art recombinant bacteria, i.e., rSalmonella and rVibrios for mucosal immunization [Drs. Yichen Lu and Bryan Roberts, Virus Research Institute (VRI), Boston]. In addition, we are also testing other mucosal delivery systems including DNA vaccine, microspheres, cholera toxin (CT) and CT-B, recombinant poliovirus, and immune complexes. These studies represent the first efforts to induce not only Th cell mediated S-IgA responses, but also CTL responses to SIV in primates immunized with different mucosal vector delivery systems. In order to focus our effort for the induction of SIV-specific immune responses following mucosal immunization, investigators from the CMIG are attempting to understand the induction and regulation of antigen-specific immune responses in rhesus macaques mucosally immunized with different preparations of SIV vaccines.

FILE 'CAPLUS' ENTERED AT 15:05:28 ON 04 JUN 2001

L11 233 S (L4 OR L6 OR L7) AND ANTIGEN
L12 12 S L11 AND PERTUSSIS
L13 6 S L12 NOT L8

L13 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:672205 CAPLUS

DOCUMENT NUMBER: 134:212529

TITLE: Encapsulation of conjugate vaccines with
Bordetella **pertussis** fimbriae as novel
carrier proteins

AUTHOR(S): Crowley-Luke, A.; Sims, M.; Reddin, K.; Vincent,
P.; Gorringe, A.; Hudson, M.; Robinson, A.

CORPORATE SOURCE: Centre for Applied Microbiology and Research,
Salisbury, SP4 OJG, UK

SOURCE: Proc. Int. Symp. Controlled Release Bioact.
Mater. (2000), 27th, 554-555

09/386266

CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB B. **pertussis** fimbriae were used as carrier proteins to produce vaccine that would protect against Hib and augment protection induced against B. **pertussis** disease where acellular **pertussis** vaccines deficient in fimbriae are used. Poly(lactide-glycolide) was used for microencapsulation of **antigen**.

IT 34346-01-5, Glycolic acid-lactic acid copolymer

RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in encapsulation of conjugate vaccines with Bordetella **pertussis** fimbriae as carrier proteins)

REFERENCE COUNT: 7

REFERENCE(S): (1) Eldridge, J; Controlled Release 1990, V11, P205 CAPLUS
(2) Eldridge, J; Infect Immun 1991, V59, P2978 CAPLUS
(3) Monsigny, M; Annal Biochem 1988, V175, P525 CAPLUS
(4) Olin, P; Lancet 1997, V350, P1569 MEDLINE
(5) Robinson, A; Vaccine 1989, V7, P321 MEDLINE
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:27732 CAPLUS

DOCUMENT NUMBER: 130:86184

TITLE: Vaccines containing Bordetella **pertussis** **antigen**

INVENTOR(S): Farrar, Graham Henry; Jones, David Hugh

PATENT ASSIGNEE(S): Microbiological Research Authority, UK

SOURCE: PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9858668	A2	19981230	WO 1998-GB1819	19980622
WO 9858668	A3	19990415		
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

Searcher : Shears 308-4994

09/386266

AU 9881194 A1 19990104 AU 1998-81194 19980622
AU 731216 B2 20010329
EP 1005367 A2 20000607 EP 1998-930917 19980622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, FI

PRIORITY APPLN. INFO.: GB 1997-13156 A 19970620
 WO 1998-GB1819 W 19980622

AB A vaccinating conjugate comprises an **antigen** conjugated to
a carrier selected from Bordetella **pertussis** fimbria,
pertussis toxin, **pertussis** toxoid, and
pertussis 69kD protein. The conjugate may also comprise a
second **antigen**, different from the first. An oral
vaccinating compn. comprises Bordetella **pertussis** fimbria
or fimbria-**antigen** conjugate.

IT 26780-50-7, Poly(glycolide-co-lactide)
RL: PEP (Physical, engineering or chemical process); THU
(Therapeutic use); BIOL (Biological study); PROC (Process); USES
(Uses)
 (vaccines contg. Bordetella **pertussis** antigen
)

L13 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:766506 CAPLUS

DOCUMENT NUMBER: 130:21355

TITLE: High-temperature solvent extraction method of
 making polymer-microencapsulated DNA emulsions
 for vaccination and gene therapy

INVENTOR(S): Farrar, Graham Henry; Jones, David Hugh; Clegg,
 James Christopher Stephen

PATENT ASSIGNEE(S): Microbiological Research Authority, UK

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	----	-----	-----
WO 9851279	A2	19981119	WO 1998-GB1403	19980515
WO 9851279	A3	19990218		
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9874408	A1	19981208	AU 1998-74408	19980515
EP 971693	A2	20000119	EP 1998-921621	19980515
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

Searcher : Shears 308-4994

09/386266

PRIORITY APPLN. INFO.: US 1996-745515 19961112
 GB 1997-9900 19970515
 WO 1998-GB1403 19980515

AB A method of making a microparticle that contains DNA coding for a polypeptide is described in which a solvent extn. method is used and solvent extn. takes place at elevated temp. Oral administration of the microparticle leads to its expression. DNA coding for an immunogen is for stimulating antibody formation in a recipient and DNA coding for a non-immunogenic polypeptide is for gene therapy applications. DNA is incorporated into the microparticle without destruction of its function.

IT **26780-50-7, Poly(DL-lactide**
 -co-glycolide)

RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (high-temp. solvent extn. method of making polymer-microencapsulated DNA emulsions for vaccination and gene therapy)

L13 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1996:76966 CAPLUS

DOCUMENT NUMBER: 124:185414

TITLE: Poly(lactide-co-glycolide) microencapsulation of vaccine **antigens**

AUTHOR(S): Jones, David H.; McBride, Brian W.; Farrar, Graham H.

CORPORATE SOURCE: Salisbury Wilts, SP4 0JG, UK

SOURCE: J. Biotechnol. (1996), 44(1-3), 29-36

CODEN: JBITD4; ISSN: 0168-1656

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fimbriae from *Bordetella pertussis* were encapsulated in poly(lactide-co-glycolide) (PLG) microspheres of a size appropriate for oral administration. The binding of antibodies which react with conformational or linear fimbrial epitopes, to fimbriae released from microspheres, suggested that the process of microencapsulation was not detrimental to the native integrity of the protein. Mice were immunized by oral gavage with a single dose of microencapsulated fimbriae, or with fimbriae adsorbed onto alhydrogel and administered by i.p. injection. The resulting immune responses in serum were comparable but only oral administration of microencapsulated fimbriae elicited specific immune responses in external secretions. Six weeks after immunization, both groups of immunized animals were protected against challenge with live *B. pertussis*.

IT **26780-50-7, Poly(DL-lactide**
 -co-glycolide)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (poly(lactide-co-glycolide) microencapsulation of vaccine

Searcher : Shears 308-4994